

Proposal # 2001- <u>6205</u> (Office Use Only)
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**PSP Cover Sheet** (Attach to the front of each proposal)

Proposal Title: Suisun Marsh Property Acquisition and Habitat Restoration  
 Applicant Name: California Department of Water Resources  
 Contact Name: Terri Gaines  
 Mailing Address: 3251 S Street Sacramento CA 95816  
 Telephone: 916.227.7522  
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 Email: tgaines@water.ca.gov

Amount of funding requested: \$ 536,750

Some entities charge different costs dependent on the source of the funds. If it is different for state or federal funds list below.

State cost \_\_\_\_\_

Federal cost \_\_\_\_\_

**Cost share partners?**

y Yes      No

Identify partners and amount contributed by each Suisun Marsh Preservation Agreement Mitigation Funds. (DWR, DFG, USBR, Suisun Resource Cons. District). DFG has and will administer the funds, 50% of the total cost of the project, \$536,750.

**Indicate the Topic for which you are applying (check only one box).**

- |  |  |
|--|--|
| <input type="checkbox"/> Natural Flow Regimes                          | <input type="checkbox"/> Beyond the Riparian Corridor                |
| <input type="checkbox"/> Nonnative Invasive Species                    | <input type="checkbox"/> Local Watershed Stewardship                 |
| <input type="checkbox"/> Channel Dynamics/Sediment Transport           | <input type="checkbox"/> Environmental Education                     |
| <input type="checkbox"/> Flood Management                              | <input type="checkbox"/> Special Status Species Surveys and Studies  |
| <input checked="" type="checkbox"/> Shallow Water Tidal/ Marsh Habitat | <input type="checkbox"/> Fishery Monitoring, Assessment and Research |
| <input type="checkbox"/> Contaminants                                  | <input type="checkbox"/> Fish Screens                                |

What county or counties is the project located in? Solano

What CALFED ecozone is the project located in? See attached list and indicate number. Be as specific as possible 2.1 Suisun Marsh

**Indicate the type of applicant (check only one box):**

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> State agency         | <input type="checkbox"/> Federal agency |
| <input type="checkbox"/> Public/Non-profit joint venture | <input type="checkbox"/> Non-profit     |
| <input type="checkbox"/> Local government/district       | <input type="checkbox"/> Tribes         |
| <input type="checkbox"/> University                      | <input type="checkbox"/> Private party  |
| <input type="checkbox"/> Other: _____                    |   |

**Indicate the primary species which the proposal addresses (check all that apply):**

- |  |  |
|--|--|
| <input type="checkbox"/> San Joaquin and East-side Delta tributaries fall-run chinook salmon                                   | <input type="checkbox"/> Spring-run chinook salmon |
| <input type="checkbox"/> Winter-run chinook salmon   | <input type="checkbox"/> Fall-run chinook salmon   |
| <input type="checkbox"/> Late-fall run chinook salmon  | <input type="checkbox"/> Longfin smelt             |
| <input checked="" type="checkbox"/> Delta smelt  | <input type="checkbox"/> Steelhead trout           |
| <input checked="" type="checkbox"/> Splittail  | <input type="checkbox"/> Striped bass              |
| <input type="checkbox"/> Green sturgeon  | <input type="checkbox"/> All chinook species       |
| <input type="checkbox"/> White Sturgeon  | <input type="checkbox"/> All anadromous salmonids  |
| <input checked="" type="checkbox"/> Waterfowl and Shorebirds   | <input type="checkbox"/> American shad             |
| <input type="checkbox"/> Migratory birds   |  |
| <input checked="" type="checkbox"/> Other listed T/E species: <u>California clapper rail, salt marsh harvest mouse, Suisun</u> |  |

thistle, soft birds beak

**Indicate the type of project (check only one box):**

- |  |   |
|--|---|
| <input type="checkbox"/> Research/Monitoring           | <input type="checkbox"/> Watershed Planning |
| <input checked="" type="checkbox"/> Pilot/Demo Project | <input type="checkbox"/> Education          |
| <input type="checkbox"/> Full-scale Implementation     |   |

Is this a next-phase of an ongoing project? Yes \_\_\_\_\_ No X  
Have you received funding from CALFED before? Yes \_\_\_\_\_ No X

If yes, list project title and CALFED number \_\_\_\_\_

Have you received funding from CVPIA before? Yes \_\_\_\_\_ No X

If yes, list CVPIA program providing funding, project title and CVPIA number (if applicable):  
\_\_\_\_\_

**By signing below, the applicant declares the following:**

- The truthfulness of all representations in their proposal;
- The individual signing the form is entitled to submit the application on behalf of the applicant (if the applicant is an entity or organization); and
- The person submitting the application has read and understood the conflict of interest and confidentiality discussion in the PSP (Section 2.4) and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent as provided in the Section.

Terra Gaines

Printed name of applicant

[Signature]

Signature of applicant

**Executive Summary**  
**SUISUN MARSH PROPERTY ACQUISITION**  
**AND HABITAT RESTORATION**

**A Pilot Project to Implement Findings of the CALFED Suisun Marsh Levee Investigation Team**

**Applicant:** Terri Gaines, California Department of Water Resources  
3251 S Street, Sacramento California 95816  
Phone (916) 227-7522 FAX (916) 227-7554 Email: tgaines@water.ca.gov

**Amount Requested:** \$536,750

**Implementation Participants/Collaborators:** Participants are the Suisun Marsh Environmental Coordination Advisory Team (ECAT) which includes DWR, DFG, USBR, and SRCD with the USFWS and ACOE in an advisory role.

**Project Description:** The Suisun Marsh Property Acquisition and Habitat Restoration Project is a proposal to acquire a seasonally managed parcel in the Suisun Marsh that fit selected criteria, conduct pre-project monitoring, and restoration planning. In addition, this is a pilot project to implement findings of the CALFED Suisun Marsh Levee Investigation Team, which will model the parcel to determine the effects of tidal conversion on water quality within the Suisun Marsh and Sacramento-San Joaquin Delta. This proposal includes the initial phases of a multi-phase project to restore natural ecosystem processes to a degraded system.

**Hypothesis:** Restoring seasonally managed wetlands in Suisun Marsh to tidal marshes that include a low-marsh, high-marsh, and upland transition zone will aid in the recovery of listed and special status plant and animal species occurring in the Suisun Marsh and will improve water quality in the Sacramento-San Joaquin Delta.

**Primary Benefits:** This project will benefit the Suisun Marsh / San Francisco Bay Ecological Management Zone by restoring land in the northern Suisun Marsh to tidal marsh. The restoration of this property will benefit listed Suisun Marsh species including but not limited to Suisun thistle, soft bird's beak, and Masons lilaeopsis, delta smelt, Sacramento splittail, California clapper rail, California black rail, salt marsh harvest mouse, and other listed and special status species. The project will also provide water quality benefits to the Delta.

**Proposed Approach:** Our basic approach is to acquire a parcel in the western or Northern Marsh that has been leveed off from tidal influence and is suitable for restoration. We will promote the development of a self-sustaining functional marsh ecosystem through restoration of natural edaphic, topographic, and tidal features.

**Coordination with CALFED ERPP Goals:** This project will help promote five of the six Ecosystem Restoration Strategic Goals. Goal 1-At Risk Species; This project will aid in the recovery of several listed Suisun Marsh species. Goal 2-Ecosystem Processes and Biotic Communities. To restore the natural tidal processes so that the parcel can develop into a self-sustaining tidal marsh ecosystem; Goal 4-Habitats. Restoring functional habitat values to these areas in Suisun Marsh will support the recovery and restoration of native species and communities including listed and at-risk species. Goal 5- Non-native Invasive Species. Long term management strategy of the restored area will include actions to reduce or eliminate invasive species; Goal 6 - Water quality. Restoration of tidal function to managed wetlands, through controlled levee breaches will improve delta water quality. ERPP goals specifically targeted tidal restoration to 5000-7000 acres of managed wetlands in the Suisun Marsh. The project will address uncertainties related to shallow water, tidal, and freshwater marsh habitats.



# **SUISUN MARSH PROPERTY ACQUISITION AND HABITAT RESTORATION**

## **A Pilot Project to Implement Findings of the CALFED Suisun Marsh Levee Investigation Team**

### **PROJECT DESCRIPTION**

#### **1. Statement of Problem**

**a. Problem:** Historically, the Suisun Bay and Marsh included about 68,000 acres of tidal wetlands. From the mid-1880s to the early 1900s, over 90 percent of these wetlands were reclaimed for agriculture. Agricultural production and success was limited due to increased salinity in Suisun Bay/Marsh region. Today, most of the levees originally constructed for agricultural reclamation now form part of the infrastructure for managing water levels in seasonal non-tidal (managed) wetlands (Goals Project, 1999). Suisun Marsh is the largest contiguous brackish water marsh remaining in the United States and the Estuary's largest contiguous protected area.

The loss of natural flows and topographic features has led to the loss of significant tidal marsh habitats in the region, including a reduction of natural tidal sloughs and emergent tidal wetlands. These habitats are critical spawning and rearing habitats for many aquatic species, including delta smelt and Sacramento splittail. The loss of the tidal access has hindered the ecological processes and functions critical for sustaining a healthy aquatic ecosystem and have created a lack of support for the Bay-Delta aquatic foodweb contributing to unhealthy fish populations. These natural sloughs also provide important nesting and feeding habitat for avian species. Much of the remaining tidal acreage is fragmented and reduced to narrow strips between sloughs and levees and lack any adjacent upland transition habitat. Reduction and fragmentation of marsh habitats has resulted in reduced populations of California clapper rail, salt marsh harvest mouse, and rare plants dependent on high tidal marsh and adjacent upland transition.

Reclamation of tidal wetlands has reduced the tidal prism and affected water quality in the Sacramento-San Joaquin Delta. The physical geometry and vegetation assemblages of the pre-altered Suisun Marsh likely created conditions which dissipated tidal range and reduced salinity intrusion in Suisun Bay and the Delta. Removal of lands from tidal action has increased tidal prism and induced salt mixing.

The Suisun Marsh Protection Plan, passed in 1977, identifies tidal marsh restoration as an implementation measure to protect wildlife and its habitat in the Suisun Marsh. The CALFED Ecosystem Restoration Program Plan (ERPP) stated a goal of restoring tidal action to 5000-7000 acres in the Suisun Bay and Marsh (ERPP, 1999). This project is also consistent with the findings of the Regional Habitat Wetland Goals Project (Goals Report, 1999).

The Suisun Marsh Preservation Agreement was signed in 1987 by DWR, DFG, USBR and SRCD and focused on the construction of large scale facilities and management actions to provide channel water salinity of adequate quality for waterfowl food plant production. Amendment Three of this agreement includes objectives for multi-species management in the Suisun Marsh and provides 3.2 million dollars towards tidal wetland habitat restoration. With CALFED funds to cost-share with these available funds, more tidal wetland habitat can be restored in the Suisun Marsh.

#### **Objectives**

The objectives of this proposal are to acquire property in the Suisun Marsh, along Hill Slough, currently managed as seasonal wetland and restore the area to a fully functioning self-sustaining tidal wetland ecosystem which includes low-marsh, high-marsh, and upland transition zones, increasing the area and contiguity of saline emergent wetlands thereby assisting in the recovery of at-risk species. Additionally,

this project is a pilot project to implement the findings of the CALFED Suisun Marsh Levee Investigation Team as to the extent of water quality benefits from controlled levee breaches in Suisun Marsh. Implementation of this project will aid in achieving the ERPP's vision and restoration target for Suisun Marsh.

This proposal covers the initial phases of a multi-phased project and includes;

- ☞ Acquisition of a parcel which meet the selection criteria.
- ☞ Hydrologic modeling to determine the location, size, and number of levee breaches to predict the extent of water quality benefits seen by tidal conversion
- ☞ Pre-project biological monitoring on the parcel
- ☞ Restoration planning

**Conceptual Model:** The conceptual model being used for this proposal predicts that when the when the topography and hydrology are restored, fully functioning tidal marsh habitats will form, and the populations of at-risk species will increase and utilize the site. The restored topographic and hydrologic features will determine the habitat types that are formed on the site. Native tidal marsh plant species will colonize the site in areas that match their living requirements. These marsh plant species will form communities, creating habitats. As habitats develop, Suisun Marsh fish and wildlife species will inhabit and utilize these restored habitats.

Hydrologic modeling conducted as part of the CALFED Suisun Marsh Levee Investigation Team has predicted that levee breaches of a certain size and at a certain location will result in lower salinity conditions in the regions of the Sacramento-San Joaquin Delta and changes in Suisun Marsh salinities (CALFED 2000). These modeling results pose uncertainties for this project because the breaches simulated were in different locations and for the most part, larger than the parcel we are proposing to convert. Parcels being considered for acquisition and tidal conversion can be modeled by the levee investigation team. The implementation team will utilize the results in the evaluation of property acquisition selection. Implementation of tidal habitat restoration will assist in validating the model.

There is uncertainty in the amount of time it takes for a fully functioning tidal wetland ecosystem to develop once the parcel is opened up to tidal action. This response depends on several factors, most notably the existing elevation of the parcel, and sediment loads of the tidal flows in the surrounding area. Elevations of managed wetlands in the marsh have natural variation depending on their location and soil type, the amount of subsidence that has occurred and pre-breach land use and management activities. There is uncertainty as to the extent of channel formation within the restored area and if listed or special status aquatic species will inhabit and utilize these channels.

The micro-topography and salinity regime within the restored tidal marsh will determine the plant species that will colonize the area. While salinities can be predicted using existing and pre-project monitoring evaluations, there is uncertainty as to the plant communities that will develop and if native plant species or exotic-invasive species will colonize. There is also uncertainties if listed and special status plant will be able to utilize the restored site and if the vegetation will be suitable to sustain Suisun Marsh listed wildlife species such as salt marsh harvest mice and California clapper rail.

These uncertainties are being addressed in this proposal and in the adaptive management and monitoring plans.

**Hypothesis being tested:** Restoring seasonally managed wetlands in Suisun Marsh to tidal marshes including a low-marsh, high-marsh, and upland transition zone will aid in the recovery of listed and

special status plant and animal species occurring in the Suisun Marsh and will improve water quality in the Sacramento-San Joaquin Delta. Testing this hypothesis through the acquisition and restoration of managed wetlands will address five of the six ERP's Strategic Goals.

**Goal 1 - Achieve recovery of At-Risk Species:** -Acquisition and restoration of seasonally managed (non-tidal) land in Suisun Marsh to tidal emergent wetland is expected to aid in the recovery of several listed and special status species dependent on Suisun Bay by restoring their natural habitat within their current range. Some of the species that will benefit from the tidal restoration of land in Suisun Marsh include (but are not limited to): Suisun thistle, soft bird's beak, Masons lilaeopsis, delta smelt, Sacramento splittail, California clapper rail, California black rail, and the salt marsh harvest mouse.

**Goal 2 - Ecosystem Processes and Biotic Communities:** Acquisition and tidal restoration of land in Suisun Marsh by levee breaching would allow the natural inundation processes to begin, which would lead to rehabilitation of natural functions and processes of a self sustaining tidal marsh ecosystem. Restoring natural processes will provide conditions that favor native species over exotic species. The development of shallow water habitat and critical upland transition zone habitat will provide habitat to at-risk species. The proposed restoration project will take an encompassing tidal marsh ecosystem approach.

**Goal 4 - Habitats:** This project will contribute to restoring large expanses of functional brackish tidal marsh and tidal perennial aquatic habitats. Restoring these habitats will aid in the recovery and restoration of native species and biotic communities in the Suisun Marsh.

**Goal 5 - Non-Native Invasive Species:** Restoring the natural tidal processes will provide habitat that supports colonization and dominance of native species. Research by DFG and others have shown that native fishes maintain higher relative abundance compared to non-native fishes in a tidal marsh (IEP, 1999)

**Goal 6 - Sediment and Water Quality:** This proposal is a pilot project to implement and validate the findings of the levee investigation team which predicts that controlled levee breaches in Suisun Marsh improves water quality in the Sacramento-San Joaquin Delta. Additionally tidal emergent wetlands filter toxics from receiving waters and allow sediments to settle and are an integral part of a healthy, functioning ecosystem.

This project is consistent with objectives of the ERPP, the Regional Habitat Wetland Goals project and Central Valley Improvement Act protections of habitat and fish and wildlife restoration goals in the Bay-Delta ecosystem. The proposed project also addresses uncertainties related to shallow water, tidal and freshwater marsh habitats identified by CALFED. Implementation goals are to restore the appropriate hydrology and topography of the site, allow natural regeneration, implement an extensive monitoring program, and controlling invasive, non-native species to better understand the tidal wetland regeneration process. We will also be able to assess the effectiveness of our modeling techniques in predicting the hydrology of the completed restoration project.

**Adaptive Management:** In the adaptive management process, the Suisun Marsh property acquisition and habitat restoration program falls under the Initiate Restoration Actions (4) Undertake Pilot/Demonstration projects category. The goals of recovering at-risk species and habitats were set forth by CALFED in the Ecosystem Restoration Strategic Goals. These goals were presented with the premise that at-risk species populations will inhabit or move into available habitats if habitats are restored.

The restoration actions proposed will benefit from preliminary data being collected at other tidal restoration sites in the Bay-Delta ecosystem including Martinez Regional Shoreline Marsh Enhancement, Sonoma Baylands Marsh Restoration, Carl's Marsh, and Crissy Field Marsh restoration. However, each site has its own complex topography, hydrology and sedimentation rates and requires its own site-specific model specific. This proposal, along with the Hill Slough West Demonstration Project, will provide data to assess the accuracy of habitat development predictions and the feasibility of large-scale restoration activities in this region.

In addition, the CALFED Suisun Marsh Levee Investigation Team has conducted a preliminary investigation of controlled breaches in specific areas within Suisun and its effect on Delta water quality. The findings of the team predict that breaches of certain size and in specific areas of the Suisun Marsh results in lower channel water salinity in critical areas within the Sacramento -San Joaquin Delta. The findings also suggest localized changes (both increases and decreases) in Suisun Marsh salinities. These findings were corroborated and verified by a private consulting firm (RMA and Associates), specializing in this area. Additional hydrologic modeling will be conducted to assist in the selection of the parcel and size of breach required to restore the area(s) to a fully functioning tidal marsh while predicting the effects on channel water salinity in the Suisun Marsh and Sacramento-San Joaquin Delta. In addition, this proposal will help validate the findings of the levee investigation team. This data will be used as part of a restoration plan developed for the parcel.

The uncertainties addressed in this proposal including shallow water marsh and upland transition zone formation and channel dynamics will be addressed and included in the restoration plan to be developed in a subsequent phase of this project. Detailed hydrologic and topographic surveys will be conducted and compared with other restoration activities in the area to better predict sedimentation rates and time frames for tidal wetland restoration in Suisun Marsh. Adaptive management will be incorporated into the restoration and monitoring plan for the parcel. For example breach size can vary between parcels to compare breach size and sedimentation rates where applicable.

The restoration plan will include success standards and criteria for terrestrial and aquatic habitat development and detailed study plans will be developed. Pre-project monitoring will be conducted in the initial phase while the post-breach monitoring plan will be developed and implemented in a subsequent phase of the project. Detailed vegetation monitoring plan will be developed and conducted. Results from this monitoring will be used in conjunction with the Suisun Marsh Wide Vegetation Survey Protocol- A New Methodology (1999) being conducted by Dr. Todd Keeler-Wolfe (DFG, Natural Heritage Division) to assess changes in vegetation over time in the restored areas. Monitoring will target the identification of limiting factors that determine the distribution and abundance of selected wetland species of concern and threatened and endangered species for various inundation-salinity regimes. Invasive species control measures will be included in the restoration plan and adapted accordingly to achieve success. Invasive species control measures will be included in restoration plan for acquired parcels to address uncertainties.

Pre-project and post-breach monitoring for the endangered salt marsh harvest mouse will be conducted in conjunction with existing SMHM monitoring that is conducted annually on managed and tidal wetlands throughout the Suisun Marsh by DFG and DWR and reviewed by ECAT. A genetic study to positively identify salt marsh harvest mice and potential hybridization with western harvest mice is being conducted in managed wetlands in Suisun beginning summer 2000 and may be expanded to include the mice collected in restored areas. Monitoring plans for other terrestrial and aquatic species will be developed and adapted to meet the targeted goals and objectives of the restoration project.



CALFED has targeted restoration in the Suisun Marsh as a priority in order to restore and connect tidal marsh habitats to allow the movement of special status species into restored areas.

## **2. Proposed Scope of Work**

**Location of Project:** This project will occur in the Suisun Marsh/San Francisco Bay ecological zone, within the Suisun Marsh ecological management unit of CALFED, identified as area 2.1 in the PSP. The project is located in Solano County. Land in the western and northern portions of Suisun Marsh will be targeted for acquisition as shown on Figure 1. We have identified a parcel in the Hill Slough region in the northeastern Suisun Marsh, and a parcel along Chadbourne Slough (Figure 1). We have also targeted areas along Cordelia and Goodyear Sloughs in the western Marsh for land acquisition. These areas are consistent with areas described in the Regional Goals Project (1999) and the ERPP. Parcels available at the time of funding will be evaluated by established criteria and one will be selected for restoration.

Due to the time delay between proposal submittal and potential funding, identifying specific properties available for purchase is difficult. Properties available now may not be available when funding is expected in early spring 2001. Conversely, there may be additional properties available once funding becomes available. As of the date of submitting this proposal, we have identified two properties within Suisun Marsh that are currently available for purchase, and may still be available for acquisition once funding is secured. The landowners have contacted DFG, Grizzly Island Wildlife Area and have expressed an interest in selling.

Black Mallard Club (Ownership # 207) (Lat: 38 deg, 13' 39" N, Long: 121 deg, 58' 55" W) is located along the upper reaches of Hill Slough and shown on Figure 2. The club is a 262-acre parcel comprised of 126 acres of managed wetland, 54 acres of tidal wetland, and 72 acres of upland. Only minimal physical modifications would likely be required to restore tidal action. This parcel is also in the same general area of the Hill Slough West Habitat Restoration Demonstration project and adjacent to muted tidal wetlands owned by DFG and managed as part of the Grizzly Island Wildlife Area. Acquisition of a parcel in this location is consistent with ERPP goals of restoring large blocks of contiguous habitat.

Approximately 300 acres have been identified along Chadbourne Slough, west of the railroad track as being available for purchase. This acreage includes portions of Marsh Ownership 129 (Lat: 38 deg 11' 30", Long: 122 deg, 5' 30"). The location of this parcel is shown in Figure 3.

Parcels along Goodyear and Cordelia Slough in the western Suisun Marsh will also be targeted for acquisition, although no specific parcel has been identified at the time of proposal submission. The area targeted is shown in Figure 1.

**Approach:** This project will be conducted in 5 phases. We are requesting funding to complete Phases I and II and begin Phase III, if possible. If funds are available because land acquisition costs are less than estimated, the balance would be used to complete Phase III and begin Phase IV.

**Phase I:** Identify potential parcels for acquisition. Acquire approximately 500 acres of land in Suisun Marsh. ECAT has developed a list of criteria and method of evaluating parcels considered for acquisition and conversion to tidal wetlands. Parcels must include the potential to include low-marsh, high marsh and upland transition zones. The exact location of parcels will depend on willing sellers but targeted areas include the Hill Slough area in the northeastern Suisun Marsh and along Chadbourne,

Cordelia and Goodyear Sloughs in the western Marsh. These areas were targeted for the high potential benefit for native and at-risk species and are consistent with areas described in the Regional Goals Project (1999) and the ERPP. Potential flood risk to adjacent landowners is another condition to be considered in selecting parcels for acquisition and restoration.

The levee investigation team will conduct hydrodynamic modeling on parcels proposed for purchase to estimate the channel water salinity effects to the Marsh and Delta. Findings will be verified with a two dimensional model under contract with RMA and Associates.

Land will be purchased only from willing sellers. DWR Division of Right of Way staff will appraise the property and conduct all necessary activities to transfer ownership of the parcel. Prices offered for parcels will be in compliance with federal and state standards. Approximate land value in Suisun Marsh is \$1200/acre. A public outreach program will be conducted with the SRCD to inform landowners that we are looking to purchase suitable parcels in the target areas. Landowners will be contacted for permission to enter property and conduct appraisal. DFG will likely assume ownership of the property. Another option is for ownership to be transferred to Solano County Farmlands and Open Space Foundation who would manage the parcel in conjunction with their Rush Ranch property. An endowment fund would be established.

Pre-project vegetation monitoring and presence absence of listed species will be conducted during Phase II. The purpose of pre-project monitoring will be to evaluate which species currently utilize the site in its existing state. Presence/absence surveys of listed species will be conducted to assist in the permitting process.

Phase II: Develop a Restoration Plan. Conduct a topographic survey and hydrologic evaluation. An engineering-level restoration plan and refined cost estimate based on a thorough understanding of the site's hydrology and topography will be developed. We will develop and implement a pre-project monitoring program expanding on existing Suisun marsh monitoring efforts following the existing agency approved protocols. We will solicit public involvement in the development of the restoration plan.

A consultant with experience in successful tidal restoration projects and expertise in Suisun Marsh will be hired to perform the hydrologic evaluation and provide input into the development of a restoration plan.

The implementation team will conduct a detailed review of other restoration projects, both successful and not successful to utilize an adaptive management approach in the development of the restoration plan for the acquired parcel or parcels. The implementation team will solicit participation from the SRCD members and landowners in the vicinity of restoration activities to develop a plan that is mutually beneficial and does not increase flood risk or their ability to manage for waterfowl.

Phase III: Complete environmental documentation and obtain necessary permits. All environmental documents will be prepared in compliance with CEQA, NEPA, ESA and CESA. Public involvement will occur during this Phase through the permitting process.

Phase IV: Execute the restoration plan and initiate adaptive management. To execute the restoration plan, levees will be breached according to the findings of the hydrologic and topographic evaluations, and restoration plan. Adaptive management will be utilized as results become available as to the progress of the project towards the goal of achieving a self-sustaining, fully functioning tidal marsh. If success criteria are not being met, then plans can be altered to address the issues and incorporate new information.

Phase V: Implement the monitoring plan of the developing emergent wetland.

**Monitoring and Assessment Plans:** The monitoring component of the project will be developed in Phase II and will be presented with the conceptual restoration plan. A quality assurance component will be included in the monitoring plan. Monitoring will include but not be limited to fisheries occurrence in the restored tidal wetland, wildlife use patterns in the restored areas and vegetation monitoring of plant composition, growth, trends, and recruitment throughout the restoration area. Several testable hypotheses, related to fish and wildlife use of the restored tidal wetland, will be developed as part of the monitoring plan as will hypotheses on the vegetative composition, native vs. invasive species dominance and colonization by special status species.

Results from existing monitoring will be used to complement site -specific monitoring on restored parcels in Suisun Marsh. Existing monitoring efforts in the Suisun Marsh are quite extensive. DWR currently conducts water quality monitoring and maintains an extensive network of salinity and tide stage recorders in the Suisun Marsh. UC Davis conducts fisheries monitoring, under contract with DWR. DFG and DWR conduct annual salt marsh harvest mouse surveys on State owned land (both tidal and managed), and ECAT has implemented a New Marsh-wide Vegetation Survey, developed and being conducted by DFG's Natural Heritage Division.

The restoration plan will include detailed study plans, success standards and criteria for terrestrial and aquatic habitat development. Pre-project monitoring will be conducted in the initial phase while the post-breach monitoring plan will be developed and implemented in a subsequent phase of the project. A detailed vegetation monitoring plan will be developed and conducted.. Monitoring will target the identification of limiting factors that determine the distribution and abundance of selected wetland species of concern and threatened and endangered species for various inundation-salinity regimes. Invasive species control measures will be included in the restoration plan and adapted accordingly to achieve success. Invasive species control measures will be included in restoration plan for acquired parcels to address uncertainties. Results from this monitoring will be used in conjunction with the Suisun Marsh Wide Vegetation Survey (DFG, 1999) conducted by Dr. Todd Keeler-Wolfe (DFG, Natural Heritage Division) to assess changes in vegetation over time

Pre-project and post-breach monitoring for the endangered salt marsh harvest mouse will be conducted in conjunction with existing SMHM monitoring that is conducted annually on managed and tidal wetlands throughout the Suisun Marsh by DFG and DWR. A genetic study to positively identify salt marsh harvest mice and potential hybridization with western harvest mice is being conducted in managed wetlands in Suisun beginning summer 2000 and will be expanded to include the mice collected in restored areas. Monitoring plans for other terrestrial and aquatic species will be developed and adapted to meet the targeted goals and objectives of the restoration project.

Water quality monitoring will be conducted in the adjacent sloughs in conjunction with existing water quality monitoring program. If necessary, a salinity/tide stage recorder may be installed at the project site. Fisheries occurrence in the restored wetland will be monitored and the plan will be developed in Phase II.

**Data Handling and Storage:** All data will be compiled and stored by Ms. Terri Gaines, Environmental Specialist with the Suisun Marsh Branch of the California Department of Water Resources. All data will be collected with GIS coordinates to facilitate GIS data layer development. Progress and data will be made accessible through the IEP webpage, and through the project email reflector.

**Expected Products/Outcomes:** Expected products of Phases I and II will include acquisition, in fee title or conservation easement (from willing sellers) of approximately 250-500 acres in Suisun Marsh, reports from hydrodynamic modeling of these parcels with predictions as to expected channel water salinity changes as a result of restoration. A topographic and hydrologic survey will also be delivered leading to the development of detailed restoration and monitoring plans for acquired parcels. Status reports will be forwarded to CALFED and disseminated on the project email reflector.

**Work Schedule:** The following specific tasks are needed to Implement Phases I and II and are expected to take place within 36 months of funding. Details of these tasks are provided in the Budget section:

- ◆ Task 1: Project Management: Completion Date: Year 1. Deliverables: CALFED status reports.
- ◆ Task 2: Form an advisory or steering group: Completion Date: Year 1. Deliverable: list of properties to acquire.
- ◆ Task 3: Land Acquisition: Completion Date: Year 1 or 2. Deliverables: purchase contract and agreements.
- ◆ Task 4: Integration with Suisun Marsh Levee Investigation Team. Completion Date: Ongoing activity during Years 1-3. Deliverable: Modeling results.
- ◆ Task 5: Develop pre-project monitoring plans. Completion Date: Year 2. Deliverables: monitoring plans.
- ◆ Task 6: Develop a restoration plan. Completion Date: Year 3. Deliverables: Restoration plan.
- ◆ Task 7: Begin environmental compliance and permitting: This is a Phase III activity that may begin during year 3.

Inseparable tasks: Tasks one through 5 are inseparable and will serve as the foundation of the success of this tidal wetlands restoration effort. Task 6 will be conducted once the parcel or parcels are selected. Task 7 is crucial to ensure the project is implemented successfully and can serve as a demonstration project for future large-scale restoration efforts. Phases IV (Implementation) and Phase V (Monitoring) will begin once Phases I through III are completed.

**Feasibility:** This project is feasible in that we have identified at least two willing sellers in the project area. However, actions towards purchasing any specific parcels cannot begin until funding is secured.

Once funding is secured through acceptance of this proposal, the implementation team will work through the SRCD to solicit additional willing sellers in the targeted area. Through the CEQA and NEPA process, implementation issues will be addressed and resolved. The environmental checklist, submitted as part of this proposal package, is the initial step towards CEQA and NEPA compliance.

## APPLICABILITY TO CALFED ERP GOALS

### 1. ERP Goals

Goal 1 - Achieve recovery of At-Risk Species: -Acquisition and restoration of seasonally managed (non-tidal) land in Suisun Marsh to tidal emergent wetland is expected to aid in the recovery of several listed and special status species dependent on Suisun Bay by restoring their natural habitat within their current range. Some of the species that will benefit from the tidal restoration of land in Suisun Marsh include (but are not limited to): Suisun Marsh listed and sensitive plant species, delta smelt, Sacramento splittail, California clapper rail, California black rail, and the salt marsh harvest mouse.

The project will help address the general target for the tidal brackish marsh special-status plant species of maintaining genetic diversity, preventing species extirpation by from localized catastrophic occurrences, and promoting the sustainability of each species. Two plant species that could benefit the most are soft bird's-beak and Suisun thistle. Attachment A shows the contribution this makes to visions, programmatic actions, and objectives of the ERPP.

Goal 2 - Ecosystem Processes and Biotic Communities: Acquisition and tidal restoration of land in Suisun Marsh by levee breaching would allow the natural inundation processes to begin, which would lead to rehabilitation of natural functions and processes of a self sustaining tidal marsh ecosystem. Restoring natural processes will provide conditions that favor native species over exotic species. The development of shallow water habitat and critical upland transition zone habitat will provide habitat to at-risk species. The proposed restoration project will take an encompassing tidal marsh ecosystem approach. Detailed hydrologic and topographic surveys will be conducted in Phase II so that sedimentation and tidal regimes may be accurately modeled and predicted. These surveys will also aid in predicting the self-sustaining habitats that will form on the site.

Goal 4 - Habitats: This project will contribute to restoring large expanses of functional brackish tidal marsh and tidal perennial aquatic habitats. Restoring these habitats will aid in the recovery and restoration of native species and biotic communities in the Suisun.

Goal 5 - Non-Native Invasive Species: Restoring the natural tidal processes will provide habitat that supports colonization and dominance of native species, thus reducing the colonization of non-native invasive species in the area. The restoration and management plan will address this goal.

Goal 6 - Sediment and Water Quality: This proposal is a pilot project to implement the findings of the levee investigation team which predicts that controlled levee breaches in Suisun Marsh improves water quality in the Sacramento-San Joaquin Delta. This project will assist in validating these findings. Additionally tidal emergent wetlands filter toxics from receiving waters and allow sediments to settle and are an integral part of a healthy, functioning ecosystem.

This project is consistent with objectives of the ERPP, the Regional Habitat Wetland Goals project and CVPIA protections of habitat and fish and wildlife restoration goals in the Bay-Delta ecosystem.

The proposed project also addresses uncertainties related to shallow water, tidal and freshwater marsh habitats identified by CALFED. The project planning is concentrated on restoring the appropriate hydrology and topography of the site and allowing natural regeneration. By allowing natural regeneration, implementing an extensive monitoring program, and controlling invasive, non-native species we will better understand the tidal wetland regeneration process and the spread of invasive species. We will also be able to assess the effectiveness of our modeling techniques in predicting the hydrology of the completed restoration project.

The proposed project is compatible with the objectives of the other CALFED programs and does not conflict with any of the potential water supply and storage conveyance alternatives. The proposed project address objectives of the Water Quality Program and Levees Program. The proposed project is a pilot project to implement the findings presented by the CALFED Suisun Marsh Levee Breach Modeling Study which indicate that levee breaches of specific size and in specific locations lower channel water salinity in the Sacramento-San Joaquin Delta. Levees in Suisun Marsh are now included in the CALFED levees program and should be considered in the implementation of ERPP objectives.

## **2. Relationship to Other Ecosystem Restoration Projects**

If the property on Hill Slough is selected for acquisition, this parcel is in the same region as the Hill Slough West Habitat Restoration Demonstration Project funded in an previous CALFED grant. The identified parcel is also adjacent to muted tidal wetlands owned by the Department of Water Resources. Acquiring an additional parcel in this area or restoring property in the western Marsh would work toward the ERPP objective of restoring large blocks of contiguous habitat as would other projects submitted for habitat acquisition and restoration during this funding cycle.

The project is also consistent with long-term wetland goals developed by the San Francisco Bay Wetlands Ecosystem Goals Project that recommends restoration of tidal marsh in the Hill Slough area. The project also dovetails with tidal wetlands recovery efforts of the USFWS and is consistent with the visions, implementation objectives, and targets for CALFED's ERP.

A secondary benefit of implementing this restoration plan is that it continue in developing a larger scale, more contiguous restoration effort that could eventually join Hill Slough, Rush Ranch, Joice Island and Petonia Slough. Completion of this project will provide additional information on habitat restoration costs for restoring tidal wetlands in the Suisun Marsh. This will allow CALFED to accurately forecast costs of meeting the restoration targets in Suisun Marsh. In addition, landowners, wetland managers, and local communities will have become involved in the process and have a stronger understanding of CALFED's objectives.

## **3. System-Wide Ecosystem Benefits:**

This project will benefit the system by connecting tidal wetland habitats in the upper reaches of Hill Slough. By connecting this restoration area with existing tidal habitat, the project has more value than if it were isolated. Implementation of this project will improve the health of the ecosystem functions and processes in Suisun Marsh.

## APPLICANT QUALIFICATIONS

The project team for this wetlands restoration effort is composed of experienced botanists, wildlife, and fisheries biologists and specialists in the science of restoration.

### **ECAT Members include:**

Cassandra Enos, Environmental Specialist-DWR, Patty Finfrock, Wildlife Biologist-DWR, Terri Gaines, Environmental Specialist-DWR, , Laurie Briden, Wildlife Biologist -DFG, Laureen Thompson, Wildlife Biologist- DFG, Dennis Becker, Wildlife Biologist- DFG, Frank Wernette, Senior biologist-DFG, Carissa Dunn, Environmental Specialist-USBR, Steve Chappell, Wildlife Biologist and Executive Director- SRCD. Additional participants on ECAT include Cecilia Brown, fisheries biologist- USFWS (advisory), Debra O'Leary -ACOE (advisory) and Kamyar Guivetchi, Supervising Engineer- DWR (liaison with SMPA Coordinators)

In addition to ECAT members, the following Agency staff and others will participate on this project on the implementation team, as technical advisors, or in specific monitoring activities.

Chris Enright, Senior Engineer- DWR (hydrodynamic modeling), Jean Witzman, Botanist- DWR, Leslie Millett, Fisheries Biologist- DWR, Brenda Grewell, wetlands ecologist, (technical advisor); USFWS Bay-Delta staff including Dr. Peter Baye,- Wetlands Ecologist- USFWS (technical advisor); Pam Muick, Executive Director of Solano County Farmlands and Open Space Foundation, (technical advisor).

### **Summary of Qualifications of Principal Participants**

**Terri Gaines:** Environmental Specialist III, Suisun Marsh Monitoring and Compliance Section, Environmental Services Office, DWR

**Education:** Bachelor of Arts, Social Ecology with an emphasis in Environmental Planning, UC Irvine, June 1983  
Graduate work in Watershed Management, Humboldt State University

**Experience** Over 8 years experience in Suisun Marsh in coordinating planning activities, preparing environmental documentation, obtaining environmental permits. Facilitator for the SMPA ECAT. Contract Manager for the Individual Ownership Management Plan Cost-Share Program. Member, Suisun Marsh Technical Advisory Committee. Implementation team participant for the Hill Slough Habitat Restoration Demonstration Project.

**Frank G. Wernette** Senior Biologist, Department of Fish and Game, Bay-Delta and Special Water Projects Division

**Education:** Bachelor of Science, Wildlife Management, California State University, Humboldt, June 1973

**Experience:** Supervisor of the Water Project Planning and Evaluation Unit. Responsible for the evaluation of proposed State Water Project water storage and conveyance projects throughout the State with an emphasis on the

Sacramento-San Joaquin Delta. Oversees analysis of fish and wildlife impacts associated with water project development. Currently assists the CALFED Bay-Delta Program in developing the comprehensive Ecosystem Restoration Program Plan for CALFED. Acts as the Department's technical lead in assessing fish and wildlife impacts of the Delta Wetlands Project and developing appropriate mitigation measures to offset impacts. Over 25 years experience in Suisun Marsh issues

**Publications:** Wernette, F.G. 1985. The 1981 Suisun Marsh Vegetation Survey. Interagency Ecological Study Program for the Sacramento-San Joaquin Estuary. Technical Report #10. 23 p.

**Chris Enright** Senior Engineer, Department of Water Resources  
Chief, Suisun Marsh Planning Section

**Education:** B.S. Environmental Engineering, Humboldt State University  
**Certification:** Professional Engineer, Civil Engineer.  
**Experience:** Supervisor, Suisun Marsh Planning. Responsible for evaluation and engineering analysis of salinity control measures in the Suisun Marsh. Currently assists the CALFED Suisun Marsh Levee Investigation Team with modeling analysis. Over 12 years experience planning, leading and implementing modeling analysis of hydrodynamics and water quality processes in the Sacramento-San Joaquin Delta. Co-Chair, IEP DSM2 Project Work Team. Six-year active member of IEP Estuaring Ecology Team. Member, IEP Suisun Ecological Workgroup.



## **COST**

**Budget:** The cost of Phases I and II as proposed is \$1,073,500. A detailed budget for this proposal is provided as Table 1. The estimated total cost of Phases I-V as described is \$1, 989,650. A summary budget for the entire project is shown as Table 2.

**Task 1: Project Management:** DWR as the lead agency will provide project management and coordination of this project. Terri Gaines, as the principal investigator, will continue to recruit and coordinate the implementation and advisory teams, levee investigation team, provide contract management, complete and forward to CALFED or the appropriate agencies any subsequent documentation as specified in the PSP, and coordinate with ECAT. An email reflector will be set up to disseminate information to team members and interested parties. Completion Date: Year 1. Deliverables: CALFED status reports.

**Task 2: Form an advisory or steering group:** This advisory group is an interdisciplinary interagency team that will utilize and refine site selection criteria developed by ECAT and conduct detailed sited investigations with the goal of acquiring a parcel or parcels suitable for restoration. The group will frame management strategies for restoration. The core of that team has already been formed. Additional members will be added early in Phase I. Completion Date: Year 1. Deliverable: list of properties to acquire.

**Task 3: Land Acquisition:** the advisory team would recommend a parcel or parcels to ECAT, who in turn would recommend to the Suisun Marsh Coordinators the purchase of a parcel or parcels. Survey, mapping, appraisals and all necessary documents to transfer ownership will be conducted by DWR Division of Land and Right of Way agents. Prices offered for parcels will be in compliance with federal and state standards. Purchase will be on a willing seller basis only. Completion Date: Year 1 or 2. Deliverables: purchase contract and agreements.

**Task 4: Integration with levee investigation team.** Provide levee investigation team with potential properties identified for restoration. Levee Investigation team will conduct hydrodynamic modeling on potential sites to predict channel water salinity changes and potential benefits to water quality. Modeling of selected parcels would be verified using a two dimensional model under contract with RMA Associates. This verification is consistent with Levee Investigation Team protocol. Completion Date: Ongoing activity during Years 1-3. Deliverable: Modeling results.

**Task 5: Develop pre-project monitoring plans.** The implementation team will work with the advisory group to determine pre-project monitoring needs and develop a pre-project monitoring program. Completion Date: Year 2. Deliverables: monitoring plans.

**Task 6: Develop a restoration plan.** See below for components. Completion Date: Year 3. Deliverables: Restoration plan.

**Subtask 6a Solicit public involvement.** Through SRCD, participants on the implementation team, adjacent landowners and interested parties will be notified and invited to participate in the restoration planning effort.

**Subtask 6b Complete a detailed topographic survey:** If appropriate, we will complete a detailed topographic survey using 6-inch elevation increments with additional spot elevations. Deliverables: final map along with the electronic data to ECAT

**Subtask 6c: Perform hydrologic and site assessment:** If the implementation team feels it necessary, a

consultant would be selected to perform a complete hydrologic assessment of the site(s). The consultant would complete a report on the physical modifications required for restoration and cost estimates. Deliverables: Report and cost estimates.

Subtask 6d: Prepare monitoring plans. Monitoring plans for fisheries and other aquatic species, wildlife, vegetation, water quality, and tidal marsh development will be developed. The plans will be peer reviewed and reviewed by ECAT. Deliverable: Monitoring plans.

Task 7: Begin environmental compliance and permitting: The project applicant will start the environmental compliance and permitting required to carry out the project. Deliverables: Draft Environmental Assessment/Initial Study and draft ACOE permit application. This is a Phase III activity that may begin during year 3.

Basis for CALFED funding: The acquisitions are located in CALFED's Suisun Bay and Marsh Ecological Management Unit. Protection of this habitat through acquisition will meet several CALFED objectives and is consistent with CALFED's ERPP for several species.

Terri Gaines, DWR Environmental Specialist will perform project management functions for this project. DWR, Suisun Marsh Planning staff will conduct hydrodynamic modeling and integration with the CALFED Suisun Marsh Levee Investigation Team. This group will also coordinate verification modeling with RMA Associates, who's two-dimensional model has been used previously in Suisun Marsh.

Development of the restoration plan will be coordinated through the implementation team. Hydrologic and topographic surveys will be contracted services.

DWR and DFG biologists will develop and implement monitoring plans.

DWR Division of Land and Right of Way staff will coordinate all activities associated with land acquisition including negotiations, appraisals, survey and mapping, title search, deed preparation, recording, etc. Market value for land in Suisun is currently approximately \$1,200/acre. The budget includes an estimate for acquisition of 500 acres because a specific parcel has not been selected for purchase.

SRCD will coordinate public involvement with Suisun Marsh landowners and interested parties.

**Cost-Sharing:** The cost-share component of this proposal would match the requested funds from CALFED with existing Suisun Marsh Mitigation Agreement (SMMA) Funds in a 50/50 cost-share arrangement. DFG holds the SMMA cost share funds and would administer the contract.

Funds are available through the Suisun Marsh Mitigation Agreement for subsequent Phases (III-permit acquisition, IV-implementation, and V-implementation monitoring) although funding from additional sources may be sought to leverage funding.

The Suisun Marsh Preservation Agreement parties have determined that the last installment of the Suisun Marsh Mitigation Agreement funds will be allocated for multi-species management in the Suisun Marsh. The funds provided by CALFED will go beyond mitigation requirements and help leverage funding provided through the Suisun Marsh Mitigation Agreement to enable Suisun Marsh wetland Managers and ECAT agencies to restore a larger mosaic of tidal wetlands in the Suisun

Marsh.

The Suisun Marsh Mitigation Funds, as with all funds expended in the Suisun Marsh under the Suisun Marsh Preservation Agreement is cost-shared 60/40 between DWR and USBR. As a condition of the SMMA, 3.2 million dollars were transferred to DFG in October 1999. These funds were placed in an account set up specifically for Suisun Marsh multi-species management projects. Expenditures from this account can only occur after ECAT recommendation and approval by the four SMPA Coordinators.

**Table 1: Detailed Budget for Phases I and II**

Year	Task	Direct Labor Hours	Direct costs	Supplies & Expendable	Equipment	Travel	Service Contracts	Misc. Direct Costs	Acquisition Costs	Total Cost
<b>Year 1</b>	<b>Task 1</b>	300	\$19,500	\$3,000						\$22,500
<b>Phase I</b>	<b>Task 2</b>	80	\$5,200	\$2,500		\$1,200				\$8,900
	<b>Task 3</b>									
	<b>Subtask 3b</b>	720	\$46,800						\$600,000	\$600,000
	<b>Subtask 3c</b>	800	\$52,000							\$46,800
	<b>Task 4</b>	200	\$60,000				\$30,000			\$52,000
	<b>Task 5</b>	160	\$10,400	\$2,000	\$3,000	\$1,000				\$90,000
<b>Total Cost Year 1</b>			<b>\$193,900</b>	<b>\$7,500</b>			<b>\$30,000</b>		<b>\$600,000</b>	<b>\$836,600</b>
<b>Year 2 - 3</b>	<b>Task 6</b>	360	\$23,400							\$23,400
<b>Phase II</b>	<b>Subtask 6a</b>			\$2,000						\$2,000
	<b>Subtask 6b</b>						\$26,000			\$26,000
	<b>Subtask 6c</b>						\$150,000			\$150,000
	<b>Subtask 6d</b>	200	\$13,000							\$13,000
		300	\$19,500	\$2,000		\$1,000				\$22,500
<b>Total Cost Years 2 &amp; 3</b>			<b>\$55,900</b>	<b>\$4,000</b>			<b>\$176,000</b>		<b>\$0</b>	<b>\$236,900</b>
<b>Total Cost for Phases I and II</b>			<b>\$249,800</b>	<b>\$11,500</b>			<b>\$226,000</b>		<b>\$600,000</b>	<b>\$1,073,500</b>

Note: Direct labor charges include salary, benefits, and overhead as specified in SAP, DWR's business and budgeting system.

**Table 2: Summary Budget for all Phases**

Task	Direct Labor Hours	Direct costs	Equipment, Supplies & Expendables	Travel (Including Vehicle costs)	Service Contracts	Misc. Direct Costs	Acquisition Costs	Total Cost
Phase I Initial planning	380	\$24,700	\$5,500	\$1,200				\$31,400
Property Acquisition	1520	\$98,800					\$600,000	\$698,800
Modeling and Model verification	200	\$13,000			\$50,000			\$63,000
Pre-project Monitoring	160	\$10,400	\$5,000	\$1,000				\$16,400
Phase II Develop Restoration Plan	860	\$55,900	\$4,000	\$1,000	\$176,000			\$236,900
Phase III Environmental Compliance and Permitting	800	\$52,000				\$15,000		\$67,000
Phase IV Estimated Implementation	150	\$9,750			\$400,000			\$409,750
Phase V Project Monitoring	100	\$6,500						\$6,500
Aquatic	800	\$52,000	\$8,000	\$1,000		\$8,000		\$69,000
Wildlife	1500	\$97,500	\$1,000	\$1,500		\$3,000		\$103,000
Vegetation	2000	\$130,000	\$500	\$1,500	\$50,000	\$2,500		\$184,500
Water Quality	400	\$26,000		\$800				\$26,800
Sedimentation and Channel Development	800	\$52,000		\$1,000	\$20,000	\$3,600		\$76,600
		\$628,500	\$24,000	\$9,000	\$696,000	\$32,100	\$600,000	\$1,989,650

Note: Direct costs calculated and estimated at May 2000 values. No inflation factor. Direct costs include salary, benefits, and overhead. Therefore, costs associated with project completion may be higher than estimated.

## LOCAL INVOLVEMENT

As Executive Director of the Suisun Resource Conservation District, Steve Chappell is a member of ECAT and will participate on the implementation team. As participants in the process, SRCD will provide input throughout this project, from property acquisition through implementation and monitoring. Updates of the project will be presented at monthly meetings of the SRCD Board of Directors. Once funding is secured, a local involvement plan will be prepared and public meetings will be held for SRCD members to describe the project and provide information to potential sellers. DFG Grizzly Island Wildlife Area is also in the region of the project. Dennis Becker, Manager of the Wildlife area, is also an ECAT participant and will participate on the implementation team.

Ms. Pam Muick, Executive Director of the Solano County Farmlands and Open Space Foundation will serve as a technical advisor. SCFOSF owns and manages Rush Ranch open space in Suisun Marsh

Mr. Dennis D. Beebe, Manager for Solano County Mosquito Abatement District has been contacted regarding the proposed project and has offered to participate in the process as appropriate.

DFG has made contact with the owners of the Black Mallard Club who have expressed an interest in selling.

The following agencies have been mailed copies of this proposal. The cover letters can be found in Attachment C.

Mr. Chris Monske  
Solano County Department of Environmental Management  
Planning Division  
601 Texas Street  
Fairfield, California 94533

Steve McAdam  
San Francisco Bay Conservation and Development Commission (BCDC)  
50 California Avenue, Suite 2600  
San Francisco, California 94111

## LITERATURE CITED

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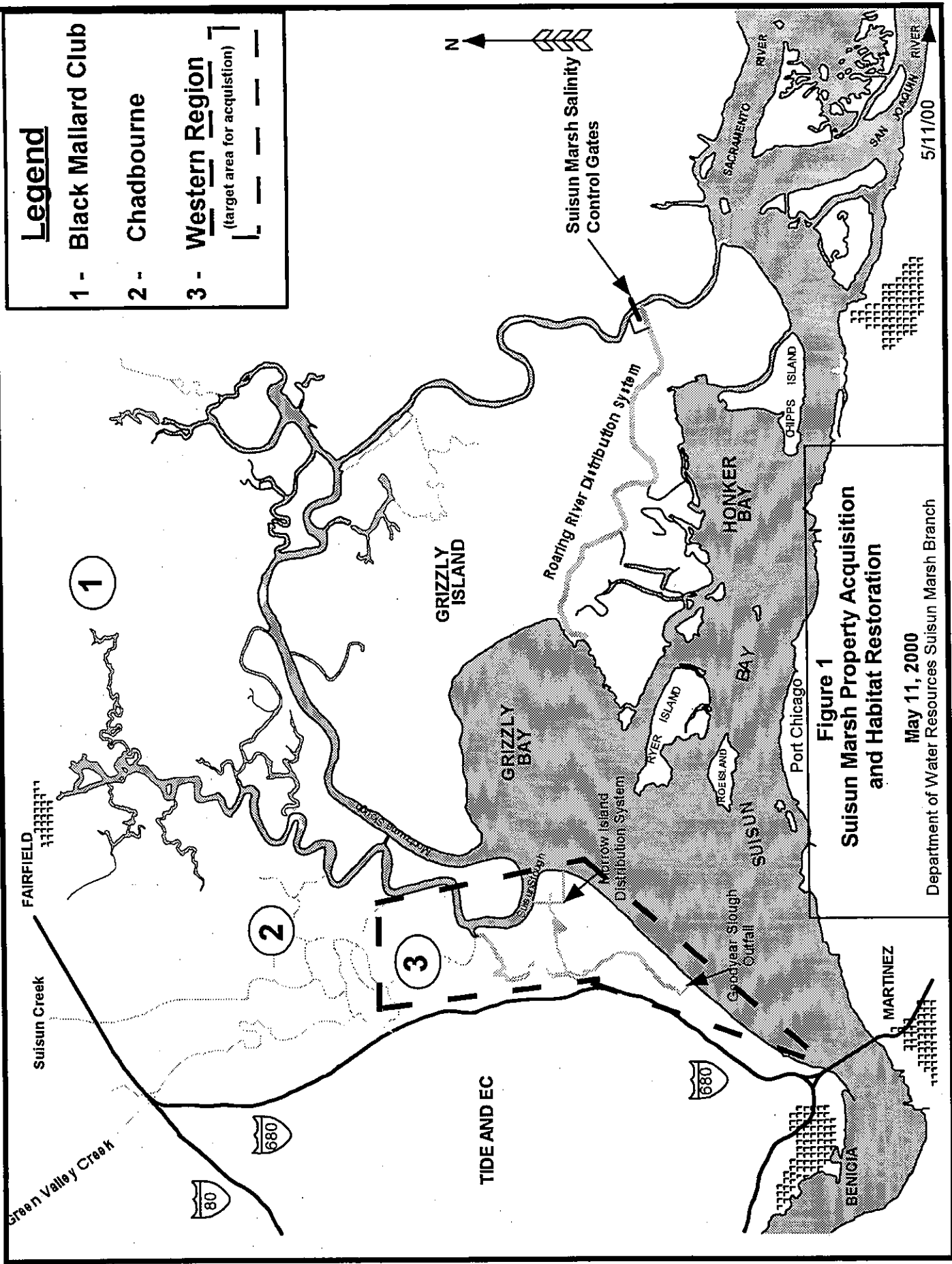
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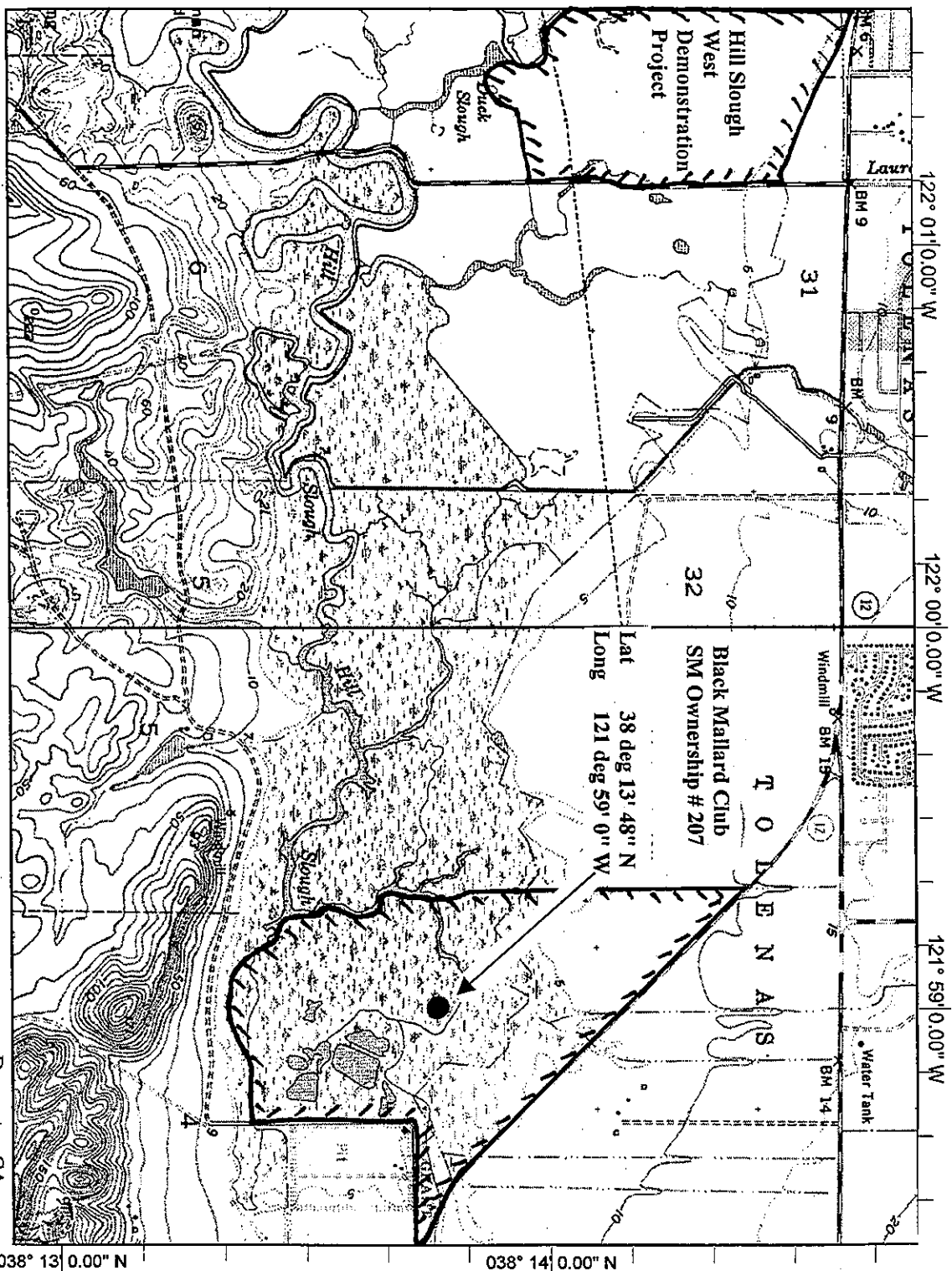
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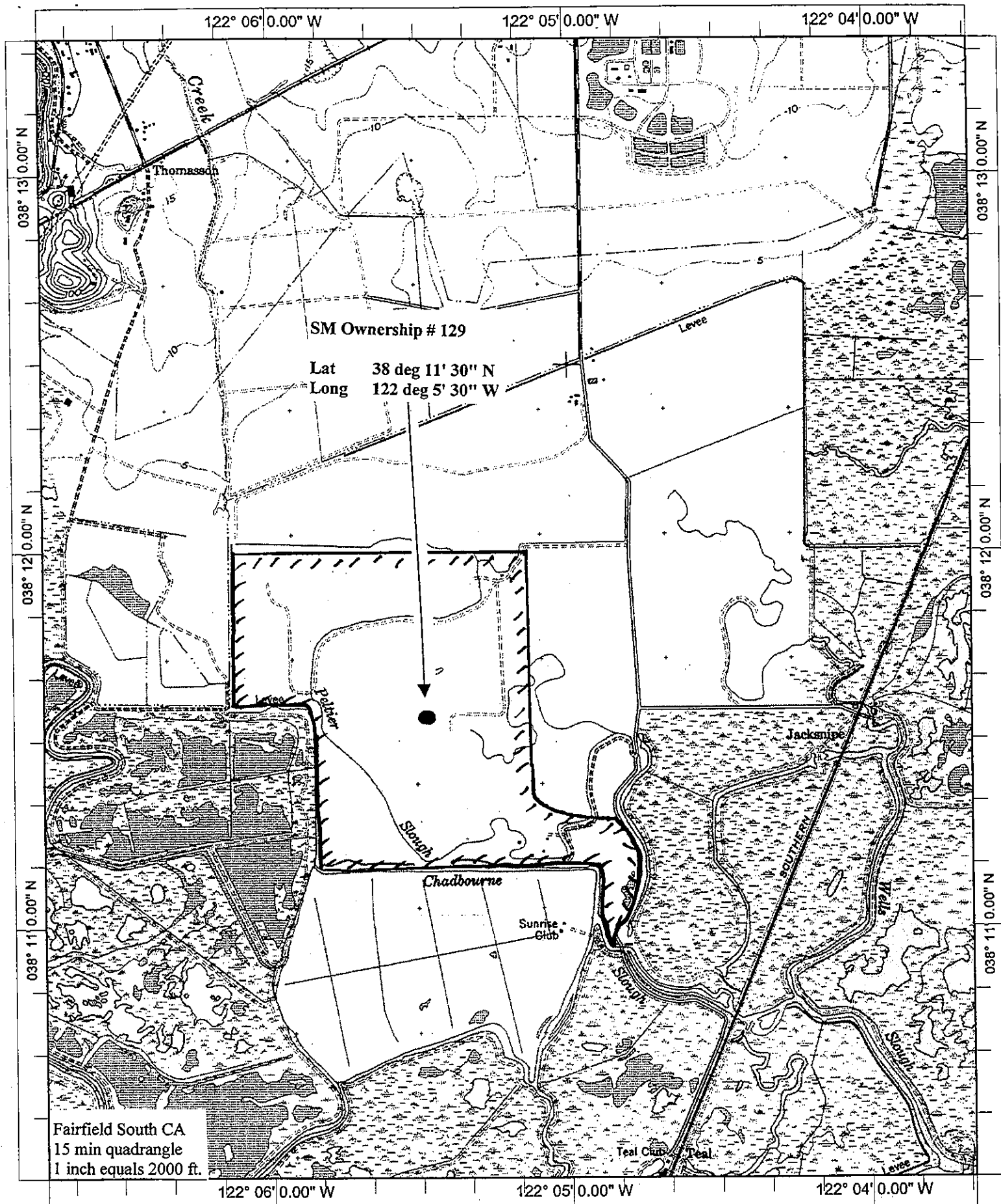


Fairfield South CA  
15 min quadrangle



Denver CA  
15 min quadrangle  
1 inch equals 2000 ft.

**Figure 2**  
**SUISUN MARSH PROPERTY ACQUISITION**  
**AND HABITAT RESTORATION**  
A Pilot Project to Implement Findings of the CALFED Suisun Marsh Levee Investigation Team



**Figure 3**  
**SUISUN MARSH PROPERTY ACQUISITION AND HABITAT RESTORATION**  
 A Pilot Project to Implement Findings of the CALFED Suisun Marsh Levee Investigation Team

**Attachment D**  
**Terms and Conditions for State Proposition 204 Funds**

This section provides terms and other conditions that will apply to contractual agreements for proposals receiving state Proposition 204 funds. Successful applicants receiving Proposition 204 funds will enter into a contract with the California Resources Agency. The specific terms and conditions that will apply to the contract will vary depending on the type of applicant (State agency, federal agency, other public entity, private for-profit, private non-profit) and the type of project receiving a grant (research/planning, construction, land acquisition).

The general contractual terms that apply to all Proposition 204 funds are set forth below. Additional State of California standard clauses will be required, depending on the type of applicant and the type of project. These additional State standard clauses are set forth at the end of this attachment. The applicability of the additional standard clauses is set forth in Table D-1.

**All applicants should review the following lists of standard clauses. If an applicant cannot agree to any standard clauses, the applicant must disclose this disagreement in their proposal or the standard clauses will be deemed nonnegotiable. The State and NFWF reserve the right to refuse to alter any standard clauses.**

1. **Term of Agreement:** The term of the Agreement will depend on the type of project and may range from 1 to 3 years. The Agreement shall not become effective until fully executed by the parties and approved by the Department of General Services.
2. **Payment Schedule:** No funds will be disbursed by the State or NFWF to Grantee without: (1) an executed copy of the Agreement; (2) receipt of an original invoice with supporting documentation; and (3) receipt and satisfactory completion of, or progress toward completion of, deliverables and/or phases of work as set forth in the Agreement, including quarterly financial and programmatic reports. Payments shall be in arrears within 30 days of receipt of an undisputed invoice by CALFED.

Required supporting documentation includes an invoice breakdown by task and line item, including task and line item budget balance. Additional supporting documentation such as payroll detail, receipts for equipment, or general ledger information may be required.

3. **Performance Retention:** Disbursements shall be made on the basis of costs incurred to date, less ten percent of the total invoice amount. Disbursement of the ten percent retention shall be made either: (1) upon the Grantee's satisfactory completion of a discrete project task (ten percent retention for task will be reimbursed); or (2) upon completion of the project and Grantee's compliance with project closure requirements specified by CALFED (ten percent retention for entire project will be disbursed).
4. **Expenditure of Funds & Allocation Among Budget Items:** Grantee shall expend funds in the manner described in the approved project budget. Any variance in the budgeted amount

among tasks, or between line items within a task, requires approval in writing by the State or NFWF. The total amount of this contract may not be increased except by amendment of this Agreement. Any increase in the funding for any particular budget item shall mean a decrease in the funding for one or more other budget items unless there is a written amendment to this Agreement.

5. Subcontracts: Grantees are responsible for all subcontracted work. Subcontracts must include all applicable terms and conditions as presented herein. The State or NFWF must approve all subcontracts and all amendments to subcontracts. Unless the subcontract was submitted to CALFED with the proposal, Grantee must obtain at least 3 competitive bids for all subcontracted work; or comply with the provisions of Government Code section 4525 et seq. as applicable; or obtain the State or NFWF's approval for non-compliance with these requirements.
6. Substitution: If Grantee chooses to substitute different subcontractors or employees for those subcontractors or employees approved for the project as part of the Scope of Work, Grantee must notify the State or NFWF and obtain the State's or NFWF's approval.
7. Conflict of Interest: Grantee shall comply with all applicable State laws and rules pertaining to conflict of interest including, but not limited to, Government Code section 1090 and Public Contract Code sections 10410 and 10411.
8. Standard of Professionalism: Grantee shall conduct all work consistent with the professional standards of the industry and type of work being performed under the Agreement.
9. Rights in Data: All data and information obtained and/or received under this Agreement shall be in the public domain. Grantee shall not sell or grant rights to a third party who intends to sell such product as a profit-making venture. Grantee shall have the right to disclose, disseminate and use, in whole or in part, any final form data and information received, collected, and/or developed under this Agreement, subject to inclusion of appropriate acknowledgment of credit to the State or NFWF, to the CALFED Program, and to all cost-sharing partners for their financial support. Grantee must obtain prior approval from CALFED to use draft data. Permission to use draft data will not be unreasonably withheld. CALFED will not disseminate draft data, but may make draft data available to the public upon request with an explanation that the data have not been finalized.
10. Acknowledgment of Credit: Grantee shall include appropriate acknowledgment of credit to the State or NFWF, to the CALFED Program, and to all cost-sharing partners for their financial support when using any data and/or information developed under this Agreement.
- ~~11. Indemnification: The Grantee agrees to indemnify, defend, and save harmless the CALFED agencies, the State of California, the Resources Agency, the Department of Water Resources, and the National Fish and Wildlife Foundation and their officers, agents, and employees from~~

any and all claims and losses accruing or resulting to any or all contractors, subcontractors, material persons, laborers, and any other person, firm, or corporation furnishing or supplying work services, materials, or supplies in connection with the performance of this contract, and from any and all claims and losses accruing or resulting to any person, firm, or corporation who may be injured or damaged by the Grantee in the performance of this Agreement.

12. Independent Status: Grantee, and the officers, agents, and employees of Grantee, in the performance of the Agreement, shall act in an independent capacity and not as officers or employees or agents of the State of California, NFWF, the CALFED agencies, the Resources Agency, or the Department of Water Resources.
13. Termination Clause: The State or NFWF may terminate this Agreement by providing notice to Grantee in writing and be relieved of the payment of any consideration to Grantee should Grantee fail to perform the covenants herein contained at the time and in the manner herein provided. The State or NFWF will reimburse Grantee for reasonable obligations incurred by Grantee in performance of this Agreement prior to the date of the notice to terminate. In the event of such termination, the State or NFWF may proceed with the work specified in this Agreement in any manner deemed proper by the State. The cost to the State shall be deducted from any sum due the Grantee under this Agreement, and the balance, if any, shall be paid the Grantee upon demand.
14. Assignment: Grantee may not assign this Agreement, in whole or in part, without the written consent of the State.
15. Integration Clause: No alteration or variation of the terms of this Agreement shall be valid unless made in writing and signed by the parties hereto, and no oral understanding or agreement not incorporated herein shall be binding on any of the parties hereto. The parties may amend this Agreement by mutual written consent and with approval by the State or NFWF.
16. Consideration: The consideration to be paid Grantee as provided in this Agreement, shall be in compensation for all of the Contractor's expenses incurred in the performance of this Agreement, including travel and per diem, unless otherwise expressly so provided.
17. Dispute Resolution: Any claim that Grantee may have regarding the performance of this Agreement including, but not limited to, claims for additional compensation or extension of time, shall be submitted to the Executive Director, CALFED, within thirty days of its accrual. CALFED and Grantee shall then attempt to negotiate a resolution of claim and process an amendment to this Agreement to implement the terms of any such resolution.
18. Severability: If any provision of this Agreement is held invalid or unenforceable by any court of final jurisdiction, it is the intent of the parties that all other provisions of this Agreement be construed to remain fully valid, enforceable, and binding on the parties.
19. Time is of the essence in this Agreement.

## FOR PROJECTS INVOLVING LAND ACQUISITION

The following terms will be required for projects that involve land acquisition, either in fee or by a conservation easement. CALFED may require certain of these terms to be included in the real property conveyance instruments for those projects involving land acquisition.

20. Purpose of Acquisition: The [describe interest in real property] that is the subject of this Agreement is being acquired by the Grantee pursuant to a grant of funds from the Resources Agency through the CALFED Bay-Delta Program for the purpose of implementing the CALFED Ecosystem Restoration Program. No use of the real property inconsistent with this purpose is permitted.
21. Approval of Land Acquisition Terms: The State shall approve the terms under which the interest in real property is being acquired pursuant to this Agreement.
22. Mitigation: The Grantee shall not use or allow the use of any portion of the real property acquired pursuant to this Agreement for mitigation to compensate for adverse changes to the environment elsewhere.
23. Fair Market Value: The purchase price of any interest in real property purchased under this Agreement shall not exceed the fair market value as established by an appraisal approved by the State.
24. Use, Management, Operation, and Maintenance: The Grantee shall use, manage, operate, and maintain the real property in a manner consistent with the purpose of the acquisition. The Grantee further assumes all management, operation, and maintenance costs associated with the real property, including the costs of ordinary repairs and replacements of a recurring nature, and costs of enforcement of regulations. The CALFED Program shall not be liable for any cost of such management, operation, or maintenance. The Grantee shall refrain from developing or otherwise using any other property it owns or controls in the vicinity of the real property in such a way as to interfere with or inconvenience the use, management, operation, or maintenance of the real property or to detract from the purpose of the acquisition. The Grantee may be excused from its obligations for management, operation, and maintenance only upon the written approval of the Executive Director of the CALFED Program, or its successor.
25. Transfer: The Grantee may not transfer the real property, or any interest in the real property, in whole or in part, without the approval of the Executive Director of the CALFED Program, or its successor.

Agreement No.: \_\_\_\_\_

Exhibit: \_\_\_\_\_

**STANDARD CLAUSES –  
INTERAGENCY AGREEMENTS**

**Audit Clause.** For Agreements in excess of \$10,000, the parties shall be subject to the examination and audit of the State Auditor for a period of three years after final payment under the Agreement. (Government Code Section 8546.7).

**Availability of Funds.** Work to be performed under this Agreement is subject to availability of funds through the State's normal budget process.

**Interagency Payment Clause.** For services provided under this Agreement, charges will be computed in accordance with State Administrative Manual Sections 8752 and 8752.1.

**Termination Clause.** Either State agency may terminate this Agreement upon thirty (30) days' advance written notice. The State agency providing the services shall be reimbursed for all reasonable expenses incurred up to the date of termination.

**Severability.** If any provision of this Agreement is held invalid or unenforceable by any court of final jurisdiction, it is the intent of the parties that all other provisions of this Agreement be construed to remain fully valid, enforceable, and binding on the parties.

**Y2K Language.** The Contractor warrants and represents that the goods or services sold, leased, or licensed to the State of California, its agencies, or its political subdivisions, pursuant to this Agreement are "Year 2000 compliant" For purposes of this Agreement, a good or service is Year 2000 compliant if it will continue to fully function before, at, and after the Year 2000 without interruption and, if applicable, with full ability to accurately and unambiguously process, display, compare, calculate, manipulate, and otherwise utilize date information. This warranty and representation supersedes all warranty disclaimers and limitations and all limitations on liability provided by or through the Contractor.

## Attachment E

## Federal Contracting Forms

If you would like to research the governing circulars or would like copies of them, the OMB website is "<http://www.whitehouse.gov/OMB/circulars/index.html>". The Washington, D.C. publications ordering telephone number, (202) 395-7332. The following circulars may be relevant to your proposal.

- Circular A-21, Revised October 27, 1998, "Cost Principles For Educational Institutions"
- Circular A-110, Revised August 29, 1997, "Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-profit Organizations"
- Circular A-133, Revised June 24, 1997, "Audits of States, Local Governments, and Non-profit Organizations"
- Circular A-87, Revised August 29, 1997, "Cost Principles for State, Local and Indian Tribal Governments"
- Circular A-102, Revised August 29, 1997, "Uniform Administrative Requirements for Grants and Cooperative Agreements with State and Local Governments"
- Circular A-133, Revised June 24, 1997, "Audits of States, Local Governments, and Non-profit Organizations"
- Circular A-110, Revised August 29, 1997, "Uniform Administrative Requirements for Grants and Agreements With Institutions of Higher Education, Hospitals, and Other Non-profit Organizations"
- Circular A-122, Revised May 19, 1998, "Cost Principles for Non-profit Organizations"
- Circular A-133, Revised June 24, 1997, "Audits of States, Local Governments, and Non-profit Organizations"
- All agreements with organizations other than those indicated above shall be in accordance with the basic principles of OMB Circular A-110, and cost principles shall be in accordance with Part 31 of the Federal Acquisition Regulations, Subpart 31.2 entitled, "Contracts with Commercial Organizations."

### Standard USBR Financial Assistance Agreement Language.

**REGULATIONS AND GUIDANCE.** The regulations at 43 CFR, Part 12, Subparts A - F are hereby incorporated by reference as though set forth in full text. The following Office of Management and Budget (OMB) Circulars, as applicable, and as implemented by 43 CFR Part 12, are also incorporated by reference and made a part of this agreement. Failure of a recipient to comply with any provision may be the basis for withholding payments for proper charges made by the recipient and for termination of support. Copies of OMB Circulars are available on the Internet at <http://www.whitehouse.gov/OMB/circulars/index.html>. The implementation of the circulars at 43 CFR Part 12 is available at <http://www.access.gpo.gov/nara/cfr/index.html>.

- a. Agreements with colleges and universities shall be in accordance with the following circulars:



Circular A-21, Revised October 27, 1998, "Cost Principles For Educational Institutions"

Circular A-110, Revised August 29, 1997, "Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-profit Organizations"

Circular A-133, Revised June 24, 1997, "Audits of States, Local Governments, and Non-profit Organizations"

b. Agreements with State and local governments shall be in accordance with the provisions of the following circulars:

Circular A-87, Revised August 29, 1997, "Cost Principles for State, Local and Indian Tribal Governments"

Circular A-102, Revised August 29, 1997, "Uniform Administrative Requirements for Grants and Cooperative Agreements with State and Local Governments"

Circular A-133, Revised June 24, 1997, "Audits of States, Local Governments, and Non-profit Organizations"

c. Agreements made with non-profit organizations shall be in accordance with the following circulars and provisions:

Circular A-110, Revised August 29, 1997, "Uniform Administrative Requirements for Grants and Agreements With Institutions of Higher Education, Hospitals, and Other Non-profit Organizations"

Circular A-122, Revised May 19, 1998, "Cost Principles for Non-profit Organizations"

Circular A-133, Revised June 24, 1997, "Audits of States, Local Governments, and Non-profit Organizations"

d. All agreements with organizations other than those indicated above shall be in accordance with the basic principles of OMB Circular A-110, and cost principles shall be in accordance with Part 31 of the Federal Acquisition Regulations, Subpart 31.2 entitled, "Contracts with Commercial Organizations."

**MODIFICATIONS.** Any changes to this Agreement shall be made by means of a written modification. Changes dealing with administrative matters (such as in paying office, changes of address, etc.) may be made by a unilateral modification. A modification issued solely for funding a Federal Fiscal Year may also be made unilaterally. Any other changes shall be made by a bilateral modification (signed by both parties). No written statement by any other person than the Grants and Cooperative Agreements Officer, and no oral statement of any person, shall be allowed in any manner or degree to modify or otherwise effect the terms of the Agreement.

**ELECTRONIC FUNDS TRANSFER.** In accordance with the Debt Collection Improvement Act of 1996, 31 CFR 208, effective January 2, 1999 all Federal payments to recipients must be made by

Electronic Funds Transfer (EFT) unless a waiver has been granted in accordance with 31 CFR 208.4. Upon award of a financial assistance agreement, Reclamation will provide the recipient with further instructions for implementation of EFT payments or a certification form to request exemption from EFT.

**ASSURANCES INCORPORATED BY REFERENCE.** The provisions of the Assurances executed by the Recipient in connection with this agreement shall apply with full force and effect to this agreement as if fully set forth in these General Provisions. Such Assurances include, but are not limited to, the promise to comply with all applicable Federal statutes and orders relating to nondiscrimination in employment, assistance, and housing; the Hatch Act; Federal wage and hour laws and regulations and work place safety standards; Federal environmental laws and regulations and the Endangered Species Act; and Federal protection of rivers and waterways and historic and archeological preservation.

**COVENANT AGAINST CONTINGENT FEES.** The recipient warrants that no person or agency has been employed or retained to solicit or secure this agreement upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide offices established and maintained by the recipient for the purpose of securing agreements or business. For breach or violation of this warranty, the Government shall have the right to annul this agreement without liability or, in its discretion, to deduct from the agreement amount, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

**CONTRACTING WITH SMALL AND MINORITY FIRMS, AND WOMEN'S BUSINESS ENTERPRISES.** It is a national policy to award a fair share of contracts to small and minority business firms. The Department of the Interior is strongly committed to the objectives of this policy and encourages all recipients of its grants and cooperative agreements to take affirmative steps to ensure such fairness.

a. The grantee and subgrantee shall take all necessary affirmative steps to assure that minority firms, and women's business enterprises are used when possible.

b. Affirmative steps shall include:

(1) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;

(2) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;

(3) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority business, and women's business enterprises;

(4) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority business, and women's business enterprises;

(5) Using the services and assistance of the Small Business Administration, and the Minority Business Development Agency of the Department of Commerce as appropriate, and

- (6) Requiring the prime contractor, if subcontracts are to be let, to take the affirmative steps listed in b.(1) through (5) above.

**NOTICE REGARDING BUY AMERICAN ACT.** In accordance with Section 502 of Pub.L. 105-245 (112 STAT. 1855), as implemented by 43 CFR 12.710, please be advised of the following:

It is the sense of the Congress that, to the greatest extent practicable, all equipment and products purchased with funds made available in this Act should be American-made.

**RESOLVING DISAGREEMENTS.** When entering into a cooperative agreement with a recipient, Reclamation commits itself to working with the recipient in a harmonious manner to achieve the objectives of the project successfully. When disagreements arise between the parties, they must be resolved according to the procedures discussed below:

- a. Reclamation shall attempt first to resolve disagreements with the recipient through informal discussion among the Grants or Contract Specialist, the Program Officer, and the recipient's Project Director.
- b. If the disagreement cannot be resolved through informal discussion between these parties, the Grants Specialist and the Program Officer shall document the nature of the disagreement and bring it to the attention of the Grants Officer.
- c. After reviewing the facts of the disagreement, as presented by the Grants and Program Offices, the Grants Officer will arrange a formal meeting. If agreement still cannot be reached, the parties will collectively decide on any varied approaches which might be used to resolve the disagreement. The parties shall be responsible for their individual expenses related to any approach utilized to resolve the disagreement. If attempts at resolving the disagreement fail, the Regional Director shall make a decision which shall be final and conclusive.
- d. Nothing herein shall be construed to delay or limit Reclamation's right to take immediate and appropriate action, as set forth at 43 CFR, Subpart 12.83, in the event of material noncompliance by the recipient, and no attempts at informal resolution shall be necessary.

Any post award issue will be open for resolution in accordance with the above procedures, with the exception of disagreements regarding continuation of the agreement (since either party may terminate the agreement with the specified notice), or other matters specifically addressed by the agreement itself.

**TERMINATION OF THE AGREEMENT.** Termination of this agreement, either for cause or convenience, will be in accordance with the termination provisions of the applicable OMB Circular.

**LOBBYING RESTRICTIONS.** In accordance with Section 501 of Pub.L. 105-245, Energy and Water Development Appropriation Act, FY 1999, as implemented by 43 CFR Part 12, Subpart A, please be advised of the following:

Recipient shall not use any of the funds from the Energy and Water Development Appropriation Act, FY 2000, directly or indirectly, to influence Congressional action on any legislation or appropriation matters pending before Congress, other than to communicate to Members of Congress as described in section 1913 of Title 18, United States Code.

# APPLICATION FOR FEDERAL ASSISTANCE

OMB Approval No. 0348-0043

<b>1. TYPE OF SUBMISSION:</b> Application <input type="checkbox"/> Construction <input checked="" type="checkbox"/> Non-Construction Preapplication <input type="checkbox"/> Construction <input type="checkbox"/> Non-Construction		<b>2. DATE SUBMITTED</b> MAY 13, 2000	Applicant Identifier														
		<b>3. DATE RECEIVED BY STATE</b>	State Application Identifier														
		<b>4. DATE RECEIVED BY FEDERAL AGENCY</b>	Federal Identifier														
<b>5. APPLICANT INFORMATION</b>																	
Legal Name: State of California, Dept. of Water Resources		Organizational Unit: Environmental Services Office															
Address (give city, county, State, and zip code): 3251 "S" Street Sacramento Ca 95816		Name and telephone number of person to be contacted on matters involving this application (give area code) Terri baines (916) 227-7522															
<b>6. EMPLOYER IDENTIFICATION NUMBER (EIN):</b> 94-6355570		<b>7. TYPE OF APPLICANT: (enter appropriate letter in box)</b> <div style="display: flex; justify-content: space-between;"> <div>           A. State            B. County            C. Municipal            D. Township            E. Interstate            F. Intermunicipal            G. Special District         </div> <div>           H. Independent School Dist.            I. State Controlled Institution of Higher Learning            J. Private University            K. Indian Tribe            L. Individual            M. Profit Organization            N. Other (Specify) _____         </div> </div> <div style="text-align: right; border: 1px solid black; width: 30px; height: 20px; line-height: 20px; margin-left: auto;">A</div>															
<b>8. TYPE OF APPLICATION:</b> <div style="display: flex; justify-content: space-around;"> <input checked="" type="checkbox"/> New           <input type="checkbox"/> Continuation           <input type="checkbox"/> Revision         </div> If Revision, enter appropriate letter(s) in box(es) <span style="border: 1px solid black; display: inline-block; width: 20px; height: 20px; vertical-align: middle;"></span> <span style="border: 1px solid black; display: inline-block; width: 20px; height: 20px; vertical-align: middle;"></span> A. Increase Award    B. Decrease Award    C. Increase Duration D. Decrease Duration    Other(specify): _____		<b>9. NAME OF FEDERAL AGENCY:</b> CALFED															
<b>10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER:</b> <div style="text-align: center;"> <span style="border: 1px solid black; padding: 2px;">XX</span> - <span style="border: 1px solid black; padding: 2px;">XXXX</span> </div> TITLE: _____		<b>11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT:</b> Suisun Marsh Property Acquisition and Habitat Restoration -A pilot project to Implement Findings of the CALFED Suisun Marsh Levee Investigation Team															
<b>12. AREAS AFFECTED BY PROJECT (Cities, Counties, States, etc.):</b> Solano County, Suisun Marsh																	
<b>13. PROPOSED PROJECT</b> Start Date: 10/1/2000    Ending Date: 9/30/2003		<b>14. CONGRESSIONAL DISTRICTS OF:</b> a. Applicant: District 5 b. Project: District 7															
<b>15. ESTIMATED FUNDING:</b> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>a. Federal</td> <td>\$ 536,750.00</td> </tr> <tr> <td>b. Applicant</td> <td>\$ 536,750.00</td> </tr> <tr> <td>c. State</td> <td>\$ .00</td> </tr> <tr> <td>d. Local</td> <td>\$ .00</td> </tr> <tr> <td>e. Other</td> <td>\$ .00</td> </tr> <tr> <td>f. Program Income</td> <td>\$ .00</td> </tr> <tr> <td>g. TOTAL</td> <td>\$ 1,073,500.00</td> </tr> </table>		a. Federal	\$ 536,750.00	b. Applicant	\$ 536,750.00	c. State	\$ .00	d. Local	\$ .00	e. Other	\$ .00	f. Program Income	\$ .00	g. TOTAL	\$ 1,073,500.00	<b>16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS?</b> a. YES. THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON: DATE _____ b. No. <input type="checkbox"/> PROGRAM IS NOT COVERED BY E. O. 12372 <input type="checkbox"/> OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW	
a. Federal	\$ 536,750.00																
b. Applicant	\$ 536,750.00																
c. State	\$ .00																
d. Local	\$ .00																
e. Other	\$ .00																
f. Program Income	\$ .00																
g. TOTAL	\$ 1,073,500.00																
		<b>17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT?</b> <input type="checkbox"/> Yes If "Yes," attach an explanation. <input type="checkbox"/> No															
<b>18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT, THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED.</b>																	
a. Type Name of Authorized Representative Dale K. Hoffman-Floerke		b. Title EPM I															
c. Telephone Number 916 227-7530		e. Date Signed 5/15/00															
d. Signature of Authorized Representative Dale K. Hoffman-Floerke																	

**ASSURANCES - NON-CONSTRUCTION PROGRAMS**

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

**PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET.  
SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.**

**NOTE:** Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.
10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL	TITLE
<i>Dale K. Hoffmann-Flecker</i>	EPM I
APPLICANT ORGANIZATION	DATE SUBMITTED
California Department of Water Resources Environmental Services Office	May 15, 2000

## BUDGET INFORMATION - Non-Construction Programs

## SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
Swiss Marsh Property Acquisition & Habitat Restoration		\$	\$	\$ 536,750	\$ 536,750	\$ 1,073,500
2.						
3.						
4.						
5. Totals		\$	\$	\$ 536,750	\$ 536,750	\$ 1,073,500

## SECTION B - BUDGET CATEGORIES

Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1)	(2)	(3)	(4)	
a. Personnel	\$	\$	\$ 124,900	\$ 124,900	\$ 249,800
b. Fringe Benefits					
c. Travel			1,600	1,600	3,200
d. Equipment			1,500	1,500	3,000
e. Supplies			5750	5750	11,500
f. Contractual			103,000	103,000	206,000
g. Construction					
h. Other <i>Property Acquisition</i>			300,000	300,000	600,000
i. Total Direct Charges (sum of 6a-6h)					
j. Indirect Charges			536,750	536,750	1,073,500
k. TOTALS (sum of 6i and 6j)	\$	\$	\$	\$	\$
7. Program Income	\$	\$	\$ 536,750	\$ 536,750	\$ 1,073,500

Authorized for Local Reproduction

Standard Form 424A (Rev. 7-97)

Prescribed by OMB Circular A-102

SECTION C - NON-FEDERAL RESOURCES					
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS	
8. Suisun Marsh Property Acquisitions & Habitat Restoration	\$ 536,750	\$	\$	\$ 536,750	
9.					
10.					
11.					
12. TOTAL (sum of lines 8-11)	\$ 536,750	\$	\$	\$ 536,750	
SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal CALFED	\$ 418,300	\$ 20,000	\$ 29,150	\$ 300,000	\$ 20,000
14. Non-Federal - APPLICANT	418,300	20,000	29,150	300,000	20,000
15. TOTAL (sum of lines 13 and 14)	\$ 836,600	\$ 40,000	\$ 58,300	\$ 600,000	\$ 40,000
SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT					
(a) Grant Program	FUTURE FUNDING PERIODS (Years)				
	(b) First	(c) Second	(d) Third	(e) Fourth	
16. Suisun Marsh Property Acquisitions & Property Acquisitions	\$ 90,000	\$ 28,450	\$	\$	
17.					
18.					
19.					
20. TOTAL (sum of lines 16-19)	\$ 90,000	\$ 28,450	\$	\$	
SECTION F - OTHER BUDGET INFORMATION					
21. Direct Charges:	22. Indirect Charges:				
Includes property acquisition					
23. Remarks:					



U.S. Department of the Interior

Certifications Regarding Debarment, Suspension and  
Other Responsibility Matters, Drug-Free Workplace  
Requirements and Lobbying

Persons signing this form should refer to the regulations referenced below for complete instructions:

Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions - The prospective primary participant further agrees by submitting this proposal that it will include the clause titled, "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions. See below for language to be used; use this form for certification and sign; or use Department of the Interior Form 1954 (DI-1954). (See Appendix A of Subpart D of 43 CFR Part 12.)

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions - (See Appendix B of Subpart D of 43 CFR Part 12.)

Certification Regarding Drug-Free Workplace Requirements - Alternate I. (Grantees Other Than Individuals) and Alternate II. (Grantees Who are Individuals) - (See Appendix C of Subpart D of 43 CFR Part 12.)

Signature on this form provides for compliance with certification requirements under 43 CFR Parts 12 and 18. The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of the Interior determines to award the covered transaction, grant, cooperative agreement or loan.

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**PART A: Certification Regarding Debarment, Suspension, and Other Responsibility Matters -  
Primary Covered Transactions**

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*CHECK ☐ IF THIS CERTIFICATION IS FOR A PRIMARY COVERED TRANSACTION AND IS APPLICABLE.*

- (1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
  - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
  - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
  - (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- (2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.
- 

**PART B: Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion -  
Lower Tier Covered Transactions**

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*CHECK ☐ IF THIS CERTIFICATION IS FOR A LOWER TIER COVERED TRANSACTION AND IS APPLICABLE.*

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

**PART C: Certification Regarding Drug-Free Workplace Requirements**

CHECK ☒ IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS NOT AN INDIVIDUAL.

**Alternate I. (Grantees Other Than Individuals)**

A. The grantee certifies that it will or continue to provide a drug-free workplace by:

- (a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;
- (b) Establishing an ongoing drug-free awareness program to inform employees about--
  - (1) The dangers of drug abuse in the workplace;
  - (2) The grantee's policy of maintaining a drug-free workplace;
  - (3) Any available drug counseling, rehabilitation, and employee assistance programs; and
  - (4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
- (c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);
- (d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will --
  - (1) Abide by the terms of the statement; and
  - (2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;
- (e) Notifying the agency in writing, within ten calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification number(s) of each affected grant;
- (f) Taking one of the following actions, within 30 calendar days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted --
  - (1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
  - (2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;
- (g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a), (b), (c), (d), (e) and (f).

B. The grantee may insert in the space provided below the site(s) for the performance of work done in connection with the specific grant:

Place of Performance (Street address, city, county, state, zip code)

Ca Dept. of Water Resources  
3251 S. Street  
Sacramento Ca 95831

Check ☐ if there are workplaces on file that are not identified here.

**PART D: Certification Regarding Drug-Free Workplace Requirements**

CHECK ☐ IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS AN INDIVIDUAL.

**Alternate II. (Grantees Who Are Individuals)**

- (a) The grantee certifies that, as a condition of the grant, he or she will not engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in conducting any activity with the grant;
- (b) If convicted of a criminal drug offense resulting from a violation occurring during the conduct of any grant activity, he or she will report the conviction, in writing, within 10 calendar days of the conviction, to the grant officer or other designee, unless the Federal agency designates a central point for the receipt of such notices. When notice is made to such a central point, it shall include the identification number(s) of each affected grant.

**PART E: Certification Regarding Lobbying**  
**Certification for Contracts, Grants, Loans, and Cooperative Agreements**

*CHECK ☒ IF CERTIFICATION IS FOR THE AWARD OF ANY OF THE FOLLOWING AND THE AMOUNT EXCEEDS \$100,000: A FEDERAL GRANT OR COOPERATIVE AGREEMENT, SUBCONTRACT, OR SUBGRANT UNDER THE GRANT OR COOPERATIVE AGREEMENT.*

*CHECK ☐ IF CERTIFICATION IS FOR THE AWARD OF A FEDERAL LOAN EXCEEDING THE AMOUNT OF \$150,000, OR A SUBGRANT OR SUBCONTRACT EXCEEDING \$100,000, UNDER THE LOAN.*

The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

As the authorized certifying official, I hereby certify that the above specified certifications are true.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL

*Dale K. Hoffman - Floerke*

TYPED NAME AND TITLE

*Dale K. Hoffman-Floerke, Environmental Prog. Manager I*

DATE

*May 15, 2000*

## **THRESHOLD REQUIREMENTS**

Letters of Notification to BCDC and Solano County  
Environmental Compliance Checklist  
Land Use Checklist

**DEPARTMENT OF WATER RESOURCES**

ENVIRONMENTAL SERVICES OFFICE  
3251 S STREET  
SACRAMENTO, CA 95816-7017



May 10, 2000

Mr. Chris Monske  
Solano County Department of  
Environmental Management  
Planning Division  
601 Texas Street  
Fairfield, California 94533

Dear Mr. Monske:

This letter is to notify you that the Department of Water Resources, as the lead agency, has submitted a proposal and request for CALFED funding for the Suisun Marsh Property Acquisition and Habitat Restoration Project. The objective of the project is to acquire in fee title, between 250 to 500 acres of managed wetlands in the northern and western Suisun Marsh; open the parcel to tidal action, restore a low/high marsh, an upland transition zone, and develop and implement a monitoring program.

This region of the Marsh has been identified in the CALFED Ecosystem Restoration Program Plan and the Baylands Ecosystem Habitat Goals Report, as an area targeted to tidal restoration, and is expected to be identified in the upcoming release of the U.S. Fish and Wildlife Services' tidal marsh recovery plan.

The Suisun Marsh Preservation Agreement Environmental Coordination Advisory Team made up of participants from DWR, Department of Fish and Game, U.S. Bureau of Reclamation, and the Suisun Resource Conservation District will provide oversight for this restoration effort. The USFWS, National Marine Fisheries Service and the U.S. Army Corps of Engineers are participating in an advisory role. The implementation team includes staff from these agencies, and other technical experts.

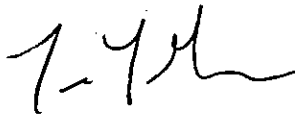
Implementation of the plan will be carried out in five phases, over approximately five years. The proposal specifies a 50/50 cost-share with the Suisun Marsh Mitigation Agreement Funds to initiate the proposal and implement the restoration effort. Funds provided by CALFED will help leverage funding provided through the Suisun Marsh Mitigation Agreement, to enable Marsh wetland managers to restore a larger mosaic of tidal wetlands in the Marsh. The Suisun Marsh Mitigation Agreement has set aside approximately two million dollars designated for multi-species mitigation in the Marsh.

Mr. Chris Monske  
May 10, 2000  
Page 2

All applicable permits will be obtained during Phase III of the project. ECAT believes this proposal is consistent with the objectives of the Suisun Marsh Protection Plan.

If you have any questions or comments, please contact me at (916) 227-7522.

Sincerely,

A handwritten signature in black ink, appearing to read 'T. Gaines', with a stylized flourish at the end.

Terri Gaines  
Environmental Specialist  
Suisun Marsh Branch

cc: Solano County Board of Supervisors  
601 Texas Street  
Fairfield, California 94533

**DEPARTMENT OF WATER RESOURCES**

ENVIRONMENTAL SERVICES OFFICE  
3251 S STREET  
SACRAMENTO, CA 95816-7017



May 10, 2000

Mr. Steve McAdam  
San Francisco Bay Conservation  
And Development Commission  
50 California Avenue, Suite 2600  
San Francisco, California 94111

Dear Mr. McAdam:

This letter is to notify you that the Department of Water Resources, as the lead agency, has submitted a proposal and request for CALFED funding for the Suisun Marsh Property Acquisition and Habitat Restoration Project. The objective of the project is to acquire in fee title, between 250 to 500 acres of managed wetlands in the northern and western Suisun Marsh; open the parcel to tidal action, restore a low/high marsh, an upland transition zone, and develop and implement a monitoring program.

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Mr. Steve McAdam  
May 10, 2000  
Page 2

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If you have any questions or comments, please contact me at (916) 227-7522.

Sincerely,

A handwritten signature in black ink, appearing to read 'T. Gaines', with a horizontal line extending to the right.

Terri Gaines  
Environmental Specialist  
Suisun Marsh Branch

cc: Mr. Bob Batha  
San Francisco Bay Conservation  
And Development Commission  
50 California Street  
San Francisco, California 94111



## Environmental Compliance Checklist

All applicants must fill out this Environmental Compliance Checklist. Applications must contain answers to the following questions to be responsive and to be considered for funding. Failure to answer these questions and include them with the application will result in the application being considered nonresponsive and not considered for funding.

1. Do any of the actions included in the proposal require compliance with either the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA), or both?

X  
YES

        
NO

2. If you answered yes to # 1, identify the lead governmental agency for CEQA/NEPA compliance.

DWR  
Lead Agency

3. If you answered no to # 1, explain why CEQA/NEPA compliance is not required for the actions in the proposal.

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4. If CEQA/NEPA compliance is required, describe how the project will comply with either or both of these laws. Describe where the project is in the compliance process and the expected date of completion.

Environmental documentation is identified as a task in Phase III of this project, which will be completed at a later date.  
An Initial Study/Environmental Assessment will be prepared leading to a Negative Declaration and Finding of No Significant Impact.

5. Will the applicant require access across public or private property that the applicant does not own to accomplish the activities in the proposal?

        
YES

X Proposal includes property  
NO acquisition

If yes, the applicant must attach written permission for access from the relevant property owner(s). Failure to include written permission for access may result in disqualification of the proposal during the review process. Research and monitoring field projects for which specific field locations have not been identified will be required to provide access needs and permission for access with 30 days of notification of approval.

6. Please indicate what permits or other approvals may be required for the activities contained in your proposal. Check all boxes that apply.

**LOCAL**

Conditional use permit ☐  
 Variance ☐  
 Subdivision Map Act approval ☐  
 Grading permit ☐  
 General plan amendment ☐  
 Specific plan approval ☐  
 Rezone ☐  
 Williamson Act Contract cancellation ☐  
 Other ☐  
     (please specify) ☐  
 None required ☒

**STATE**

CESA Compliance ☒ (CDFG) in future phases  
 Streambed alteration permit ☒ (CDFG)  
 CWA § 401 certification ☒ (RWQCB)  
 Coastal development permit ☐ (Coastal Commission/BCDC)  
 Reclamation Board approval ☐  
 Notification ☒ (DPC, BCDC)  
 Other ☐ BCDC  
     (please specify) ☐  
 None required ☐

**FEDERAL**

ESA Consultation ☒ (USFWS) in future phases  
 Rivers & Harbors Act permit ☒ (ACOE)  
 CWA § 404 permit ☒ (ACOE)  
 Other ☐  
     (please specify) ☐  
 None required ☐

DPC = Delta Protection Commission  
 CWA = Clean Water Act  
 CESA = California Endangered Species Act  
 USFWS = U.S. Fish and Wildlife Service  
 ACOE = U.S. Army Corps of Engineers

ESA = Endangered Species Act  
 CDFG = California Department of Fish and Game  
 RWQCB = Regional Water Quality Control Board  
 BCDC = Bay Conservation and Development Comm.

## Land Use Checklist

All applicants must fill out this Land Use Checklist for their proposal. Applications must contain answers to the following questions to be responsive and to be considered for funding. Failure to answer these questions and include them with the application will result in the application being considered nonresponsive and not considered for funding.

1. Do the actions in the proposal involve physical changes to the land (i.e. grading, planting vegetation, or breaching levees) or restrictions in land use (i.e. conservation easement or placement of land in a wildlife refuge)?

X  
YES

            
NO

2. If NO to # 1, explain what type of actions are involved in the proposal (i.e., research only, planning only).

3. If YES to # 1, what is the proposed land use change or restriction under the proposal?

Breaching levees in Suisun Marsh

4. If YES to # 1, is the land currently under a Williamson Act contract?

            
YES

X  
NO

5. If YES to # 1, answer the following:

Current land use

Current zoning

Current general plan designation

managed wetland  
area included in the primary management area  
of Suisun Marsh, as designated in the  
Suisun Marsh Protection Plan

6. If YES to #1, is the land classified as Prime Farmland, Farmland of Statewide Importance or Unique Farmland on the Department of Conservation Important Farmland Maps?

            
YES

X  
NO

            
DON'T KNOW

7. If YES to # 1, how many acres of land will be subject to physical change or land use restrictions under the proposal?

8. If YES to # 1, is the property currently being commercially farmed or grazed?

            
YES

X  
NO

9. If YES to #8, what are

the number of employees/acre           

the total number of employees

**10. Will the applicant acquire any interest in land under the proposal (fee title or a conservation easement)?**

X  
**YES**

**NO**

11. What entity/organization will hold the interest? DFG

**12. If YES to # 10, answer the following:**

<b>Total number of acres to be acquired under proposal</b>	
<b>Number of acres to be acquired in fee</b>	
<b>Number of acres to be subject to conservation easement</b>	

250-500  
250-500

**13. For all proposals involving physical changes to the land or restriction in land use, describe what entity or organization will:**

**manage the property.**

DFG

**provide operations and maintenance services**

DFG

**conduct monitoring**

ECAT, SMPA agencies

(DFG, DWR, USBR, SRCD)

**14. For land acquisitions (fee title or easements), will existing water rights also be acquired?**

X (riperian)  
YES

**NO**

**15. Does the applicant propose any modifications to the water right or change in the delivery of the water?**

**YES**

X  
**NO**

**16. If YES to # 15, describe** \_\_\_\_\_

## **APPENDIX A**

Contributions The Suisun Marsh Property Acquisition And Habitat Restoration--A Pilot Project To Implement Findings Of The CALFED Suisun Marsh Levee Investigation Team Makes To Visions, Programmatic Actions, And Objectives Of The February 1999 Ecosystem Restoration Program Plan.

**Contributions The Suisun Marsh Property Acquisition And Habitat Restoration--A Pilot Project To Implement Findings Of The CALFED Suisun Marsh Levee Investigation Team Makes To Visions, Programmatic Actions, And Objectives Of The February 1999 Ecosystem Restoration Program Plan.**

**VISIONS**

<b>SPECIES, COMMUNITY OR LOCATION</b>	<b>BENEFICIAL ACTION</b>	<b>ERPP</b>
Suisun Bay and Marsh Ecological Management Unit	Restoration of natural marsh features such as tidal channels to the Suisun Marsh	ERPP, Volume II, page 131
Bay-Delta Aquatic Foodweb	Restoration of additional tidal wetlands in the Suisun Marsh	ERPP, Volume I, page 98
Tidal Marsh Plant Community	Restoration of additional suitable brackish wetlands	ERPP, Volume I, page 373
Tidal Perennial Aquatic	Restoration of tidal action to diked lands	ERPP, Volume II, page 134
Essential Fish Habitat	Restoration of additional tidal wetlands	ERPP, Volume II, page 135
California Clapper Rail	Restoration of additional suitable brackish wetlands	ERPP, Volume II, page 138
California Black Rail	Restoration of marshes and emergent wetlands in the North Bay	ERPP, Volume II, page 138
Suisun Song Sparrow	Restoration of additional suitable tidal wetlands in the Suisun Marsh	ERPP, Volume II, page 138
Longfin Smelt & Splittail	Restoration of tidal wetlands of the Suisun Marsh	ERPP, Volume II, page 136
Delta Smelt	Restoration of additional tidal wetlands	ERPP, Volume II, page 134
Native Resident Fish Species, Striped Bass, Marine Fishes, Shellfish	Restoration of tidal wetlands improves water quality which helps maintain healthy fish populations	ERPP, Volume II, pages 136-137

**PROGRAMMATIC ACTIONS**

Bay-Delta Aquatic Foodweb	Restoration of tidal wetlands in the Suisun Bay area	ERPP, Volume II, page 144
Saline Emergent Wetlands	Return acquired wetlands to tidal action	ERPP, Volume II, page 146
California Black Rail	Restoration of additional suitable brackish emergent wetlands	ERPP, Volume I, page 249
Shorebird	Provide tidal foraging habitat	ERPP, Volume I, page 355

#### OBJECTIVES

Saline Emergent Wetlands	Restoration of saline emergent wetlands to the Suisun Marsh	ERPP, Volume I, page 133
Salt Marsh Harvest Mouse	Restoration of marshland habitat	ERPP, Volume I, page 261
Suisun Ornate Shrew	Restoration of tidal habitat	ERPP, Volume I, page 264
Western Least Bittern	Restoration of tidal action to aquatic habitat	ERPP, Volume I, page 309
Waterfowl	Restoration of tidal sloughs	ERPP, Volume I, page 359